

Desert

MAY, 1954 35 Cents





*Death Valley from Dante's View. Photo by Truman D. Vencil
courtesy Las Vegas, Nevada, Chamber of Commerce.*

DESERT SUNRISE

By ETHELYN M. KINCHER
Meeker, Colorado

The dawn unrolls the tapestry of day,
A masterpiece, clean-woven by the Hand
That wipes out night and puts the stars
away,
Preparing sunrise on the desert land.

Low in the east, the carols of color come
And rise in a crescendo to a song
That fills the desert heart, but leaves lips
dumb—
Even the winds are silenced, moment-long.
Then, arched across the mesa, cliff and crest,
The canopy of sky turns slowly blue,
A ray of sun points to the waiting West,
And once again the desert day is new.

DESERT SUNSET

By KENNETH W. PAULI
Stanford, California

The air in the canyon lay tired
And breathed hot on the crest of the rim
When the sun—red-stained with dust,
Dismounted, sank and grew dim.

The stars were hardly a wisp;
Thin was the mountain haze.
The tumbleweed shadows were blue
As the smoke of a dying blaze.

But deep in the West the heavens were
bright,
And something or someone up high
Set spurs to a mount and rode trail
To the end of that blazing sky.

Then branding the clouds with fire
Upgathered the straggling light,
And slammed the corral gates shut
In the face of the galloping night.

SHADOW CLAN

By ALICE BRILEY
Albuquerque, New Mexico

At dusk, the ancient gods return
To walk their tribal paths once more.
Filing forth from tented rocks,
They dance upon this desert floor,
Some stately, long-forgotten rite,
At last, the twilight ritual done,
Tall, the shadow chieftains stand
With ceremonial robes drawn close,
And lay themselves upon the sand
Beneath a star's ancestral light.

TRANSITION

By MILDRED BREEDLOVE
Las Vegas, Nevada

These many years I pitched my lonely tent
Upon the desert's bare unfriendly sand
And in a plantless world I paper-planned
A vivid southern garden where the scent
Of lilacs would bewitch the passersby.
A garden where the dews and morning mists
Would sprinkle pearls among the amethysts
Providing nectar for a butterfly.
The seasons came and went, though unper-
ceived;

And day on cloudless day wove magic spells;
The soundless solitude of space retrieved
The heart I gave to trees and carpet-bells.
No less colorful these hills no Spring has
leaved,
And I've forgotten how a lilac smells.

DESERT WIND

By PAUL WILHELM
Thousand Palms, California

So let me live where I may hear
The silken whisper of the sand,
The singing music of the sphere,
The light-wing feet, the unseen hand
Of pressing winds that murmur near
The pulsing spirit of this land!

Death Valley Panorama

*As seen by Ted Huggins and Raymond
Moulin at Dante's View*

By BESSIE BERG
Rio Linda, California

Where in this sweeping vision does the
unreal end,
Reality begin? "The Path of Death" they
called it;
Sea of seething alkali—waves of heat that
send
Their wash as if on ocean shore; image knit
From dreams, where ocean is no more:
strange beach
Where mortals never cooled parched feet;
and only fit
For sprites of Hades; mirage shores that
reach
To the worn talus of the Panamints with
surge
Of surf-like haze, where wanderers might
beseech
The desert all in vain for water, as they
urge
Failing spirits toward a shimmering, elusive
place;
An ever distant fantasy: until their dirge
Is sung by wind-driven sand, whose burning
waves erase
Footprints from this arid shore, leaving no
trace.

BLIND MAK'TA

By ELLA LOUISE HEATLEY
Long Beach, California

Daily sitting at his loom,
Weaving, weaving;
Intricate his work, his blindness
Past believing.
Fingers, skill and memory—
All combining
To produce this masterpiece—
His designing.
Vigorous, past seventy,
Free, wise, gritty,
Younger men seek his advice
(He scorns pity!)
Happy, proud, he labors on,
Never grieving.
Daily sitting at his loom
Weaving, weaving!

DESERT PEACE

By NESSIE M. KEMMER
San Diego, California

Somewhere there is a place,
A place of wide and open space,
With quail and coyote calls
Unconfined in man made walls,
Where whirring wings may mean a dove,
Not warring jets that scream above.

STRANGE WAYS

By GRACE BARKER WILSON
Kirtland, New Mexico

The desert ways are strange ways,
Harsh, silent, and austere,
Beneath a blazing sun by days,
A thing for men to fear.

The desert ways are strange ways
With magic luring far,
Beneath a silver moon that stays
To light a vagrant star.

The desert ways are strange ways,
But those within its bound
Feel all the world lies in the maze
That circles it around.

DESERT CALENDAR

May 1 — Annual Fiesta and Spring Corn Dance, San Felipe Indian Pueblo, New Mexico.

May 1-2—Turtle Races and Western Parade, Joshua Tree, California.

May 1-2—Southern California Sierra Club natural science outing to Joshua Tree National Monument, California.

May 2 — Annual Parker Regatta, Parker, Arizona.

May 3 — Ceremonial Races, 8:30-10:00 a.m., Taos Pueblo, New Mexico.

May 6 — Public pilgrimages to old Spanish homes, Mesilla, New Mexico.

May 7-9—13th Annual Lone Pine Stampede, Lone Pine, California.

May 8-23—28th Annual Wildflower Show, Julian, California.

May 12-15—Junior Livestock Show, Spanish Fork, Utah.

May 13-16—20th Annual Helldorado and Rodeo, Las Vegas, Nevada.

May 14-15 — Procession and Blessing of Fields, San Ysidro Chapel near Los Cordovas, New Mexico.

May 15-16—Annual Grubstake Days, Yucca Valley, California.

May 16 — Quarter horse show, Sonoita, Arizona.

May 21-23—Calico Days, sponsored by Yermo Chamber of Commerce at Calico Ghost Town, California.

May 26-29—Elks Rodeo, Carlsbad, New Mexico.

May 27-28—Annual Livestock Show, Vernal, Utah.

May 29-30—Fiesta of San Felipe de Neri, Albuquerque, New Mexico.

May 29-31 — Desert Peaks Section, Southern California Sierra Club climb of Glass Mountain, single peak which rises out of the desert between the White Mountains and the High Sierra.



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Number 5

COVER

Saguaro Blossoms by HUBERT A. LOWMAN of Covina, California. This giant cactus produces creamy white blossoms generally late in May. It is the Arizona state flower.

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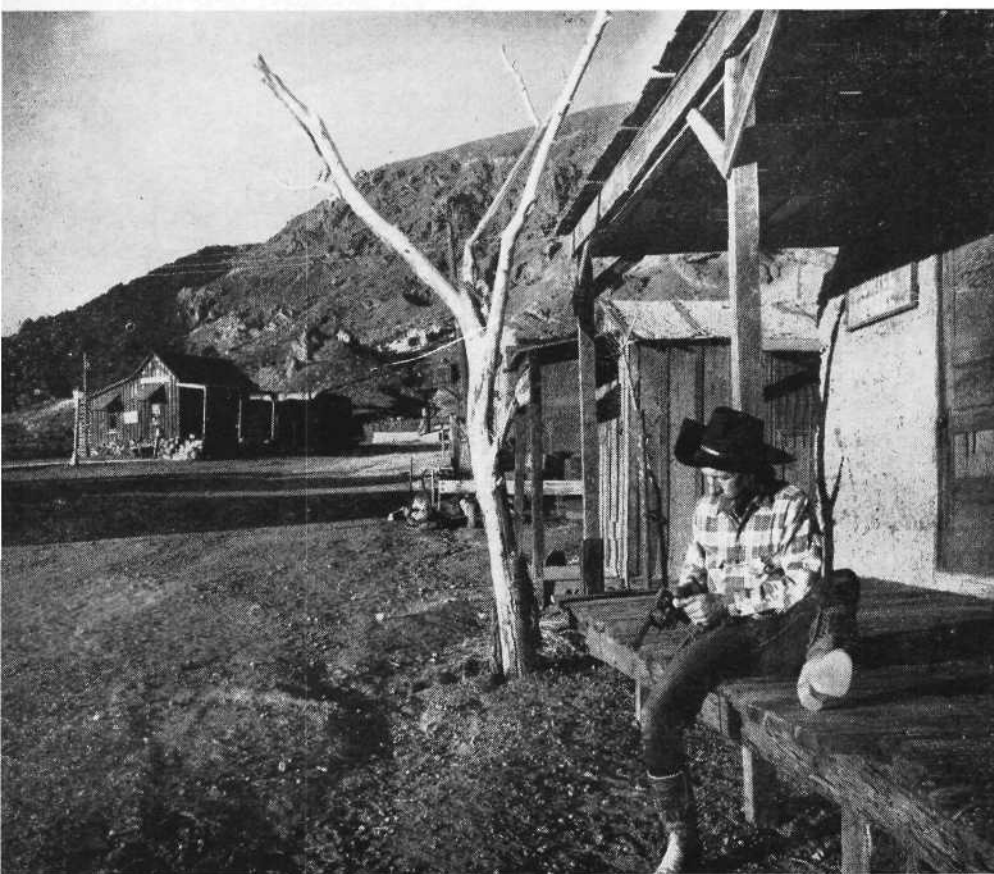
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PICTURES OF THE MONTH



OLD CALICO . . .

Storm clouds were gathering over the ghost town of Calico when Clinton L. Hoffman of Arcadia, California, took the above photograph late last February. Once the richest silver mining camp in California, the town will come to life again May 21 to 23 during the Calico Days celebration sponsored by Yermo Chamber of Commerce. Hoffman used a Rollei-cord camera, K-2 filter, 1/50 second at f. 16 for this picture which won first prize in Desert's March contest.

Marshal "Calico Fred" Noller checks his trusty .45 after another busy day guiding tourists around Calico streets and shops, now under reconstruction. Second Prize Winner Hubert A. Lowman of Covina, California, used a Brand 17 4x5 view camera with 5" f. 4.7 Ektar lens, Super XX film, medium yellow filter, 1/25 second at f. 11. The picture was made just before sunset.

Nevada Ghost Town Where the School Bell Still Rings

They still teach the three Rs in Unionville, Nevada, although the town has long been a ghost. "But we're running out of children," Grandma Leonard, who has lived in Unionville for 85 years, says of the town's five families, and the school is not expected to open next fall. Here is Nell Murbarger's story of the Leonards and their ghost town home in the shadow of the Humboldt Mountains of Nevada.

By NELL MURBARGER

Photos by the Author

Map by Norton Allen

DEEP IN Buena Vista Canyon, on the east slope of the Humboldt range, lies Unionville, Nevada.

Unionville is a ghost town. Its single, twisting street is bordered by crumbling ruins; its mine tunnels stand silent. The spooky old mill overlooking town is draped in cobwebs and tenanted by bats; and where men by thousands once followed the trail of treasure, only five families live today.

I had gone to Unionville to see the Clarence Ernsts who are hoping to develop the famous old Arizona Silver Mine as a scheelite producer. When I learned that Mrs. Ernst had been born at Unionville and had lived there more than 60 years, I sensed a story for *Desert Magazine*. But my hostess only shook her head.

"I'm sorry," she said. "There isn't much I can tell you about the boom days, because Unionville was a ghost town long before I was born."

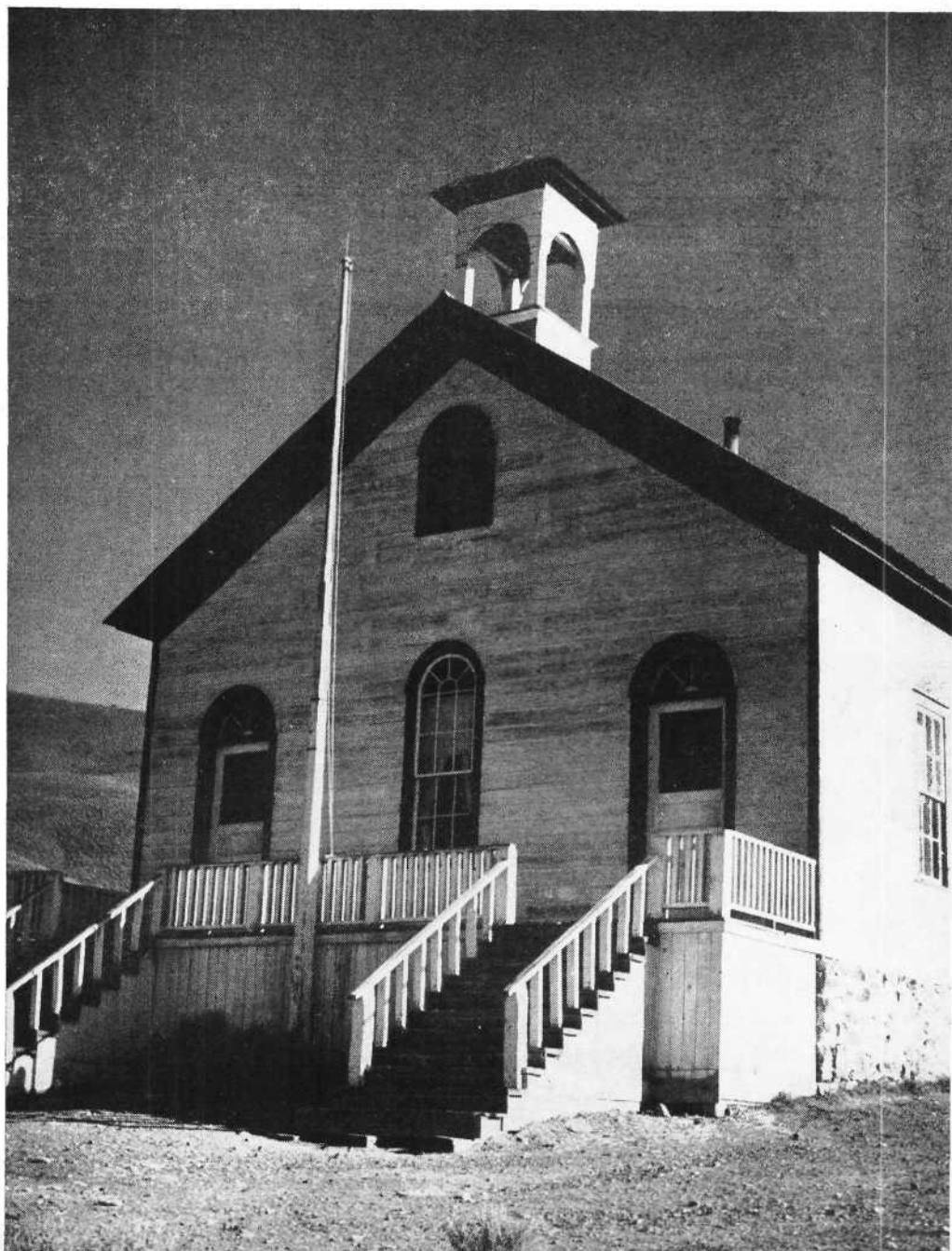
"No," she said, "the person for you to see is 'Grandma' Leonard. Grandma has lived in Unionville for 85 years, and her parents and grandparents lived here before she was born."

The next morning found me heading up the street toward the Leonard home.

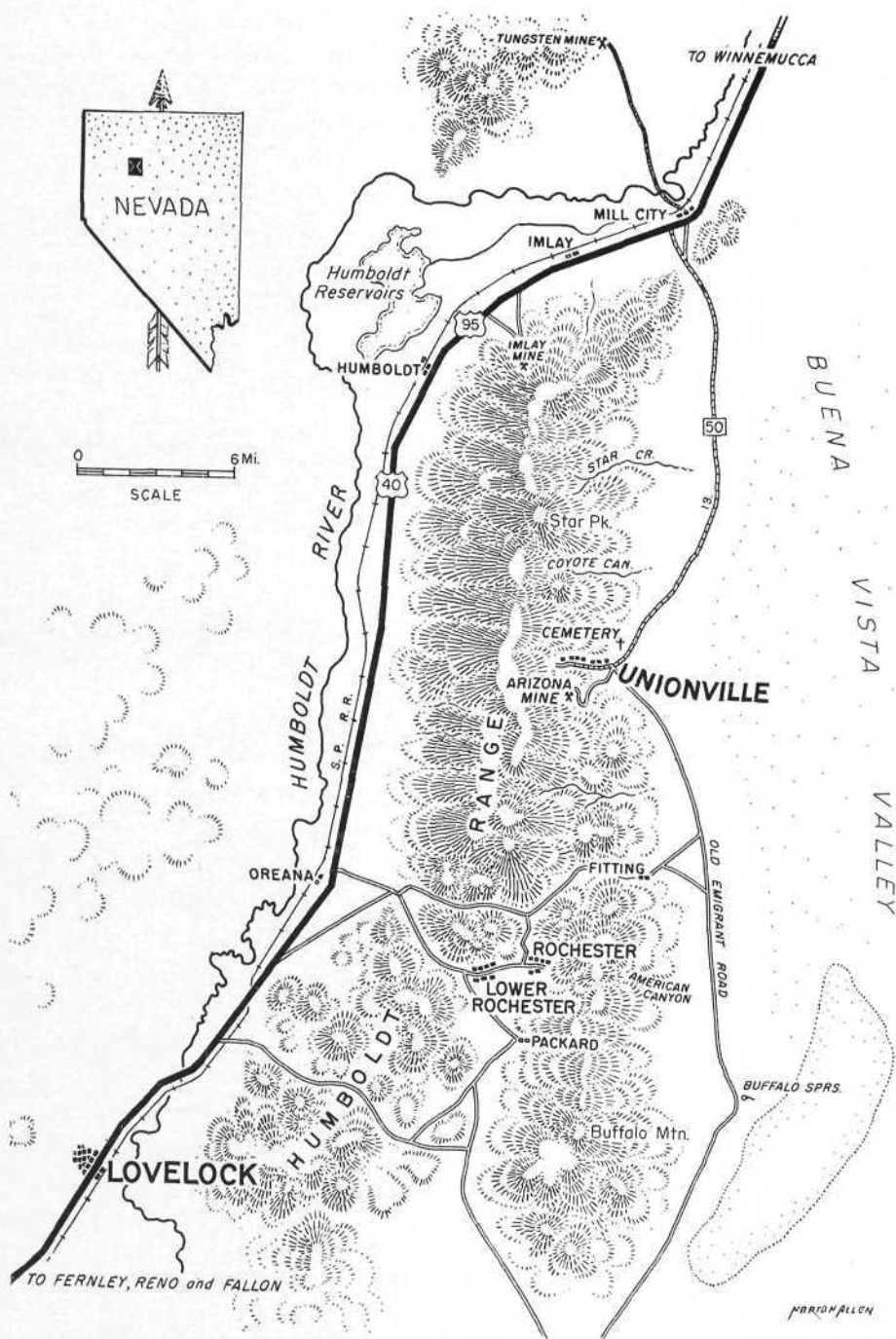
Scarcely more than a rifle shot beyond the town rose the pine-forested peaks of the Humboldt range. Although it was June, their 9000-foot crests still lay deeply buried in snow. I knew that high in those hoary summits lay the birthplace of Buena Vista

Creek — a merry little stream that tumbles through the heart of Unionville, tossing its cold white spray over watercress and mimulus and bathing the roots of great cottonwoods along its banks. Not far below town its crystal waters are lost in the alkaline barrenness of Buena Vista Valley.

Below the nut pines and mahogany on the higher slopes grew junipers and gray sage. Chokecherry thickets were fragrant with bloom, and tracks of quail and chukar partridge cut patterns in the soft dust of the old stage road. Everywhere in the canyon lay crumbled evidence of a city that had flowered and faded—time-mellowed adobe walls and wide stone fireplaces; shuttered windows and sagging verandas and broken gates. Enveloping these old homes were thick mats of Virginia creeper and thorny jungles of purple



Although Unionville, Nevada, has long been considered a ghost, children are still taught in the town schoolhouse. Built in 1871, the neat white building has seen constant use through 82 terms of school. It is said to be the oldest school building in Nevada still used for its original purpose.



lilacs and old-fashioned roses, Queen Bess and Cherokees, and yellow moss. Tall grass covered yards and pathways.

The Leonard home was old, like the others, and had its lilacs and roses; but here was a comfortable, lived-in look that the others lacked. There were curtains at the windows; tulips were blooming in the garden, and from the old chimney curled a friendly plume of wood smoke.

The woman who answered the door was small and white-haired and quick like a sparrow. Her eyes were bright and clear, and the crinkled lines at their corners fell naturally into place when she laughed.

Like Mrs. Ernst, Martha Leonard

showed an interest in my quest; but, she too, shook her head.

"I'm afraid I can't give you much first hand information because I was only a small girl when the boom days ended," she said. "About the best I could do would be to recall some of the stories my folks used to tell. . . . But come on in the house and have some cold milk and cookies," she invited. "At least we can visit a bit."

All the while I sat at the oilcloth-covered table in the old kitchen, a mockingbird was singing in a tree by the open window, and a clock on the wall was ticking away the hours; yet, I was only dimly aware of these sounds.

For the most part I was lost com-

pletely in the story that was being re-woven by this "first lady" of Unionville.

Later I supplemented that story with information supplied by the Ernsts and with material gleaned from yellowed files of Unionville's two newspapers, the *Humboldt Register* and *Silver State*, now preserved among the treasured archives of Nevada State Historical Society at Reno.

The saga of this desert mining camp had its beginning in 1860 when rumors of rich silver deposits in the Humboldt range reached the Comstock region, and a dozen families left that overcrowded area to come north and found the settlement of Humboldt City, ten miles northwest of the present site of Unionville.

Out of that town, in the spring of 1861, had ranged a prospecting party comprised of Capt. Hugo Pfersdorff, J. C. Hannan, four Paiute Indians, and two burros. Gaining the crest of the range, these men had looked down upon a stream-watered canyon that broke away toward the east. They called it Buena Vista; and upon finding rich silver croppings, they had hurried back to Humboldt City with news of their discovery.

By July 4 of that year, the new-found canyon had attracted settlers in sufficient number that an Independence Day celebration was held, and three days later the present site of Unionville was plotted. A choice building location was offered, cost free, to every man who would contribute two days work on the public road and make improvements on his lot to a value of fifty dollars.

At the time of Unionville's founding, the Comstock Lode was still shining as a star of first magnitude; but even in Virginia City there were many men who had been a little too late to connect with a major bonanza. Every one of these was spoiling for a second chance at the purse of Fortunatus, and every rumor of a new discovery sent newspaper reporters into flights of fancy. Through the alchemy of printer's ink, even a second rate strike could be transformed into a glittering Golconda that threatened to upset the economic balance of the world.

Before Unionville's mines had produced so much as a wagon load of ore, the *Territorial Enterprise* of Virginia City had heaped its benediction on the new district.

"I shall express an honest opinion based on a thorough examination," the mining reporter of the *Enterprise* had written. "Humboldt County is the richest mineral region upon God's footstool! Each mountain range is

gorged with the precious ore. The other day an assay of mere croppings yielded \$4000 to the ton! A week or two ago, an assay of just such surface development made return of \$7000 to the ton! Each day, and almost every hour, reveals new and startling evidence of the profuse and intensified wealth. . . . Have no fears of the mineral resources of Humboldt County. They are incalculable!"

And from Salt Lake to San Francisco, soon sounded the cry, "On to the Humboldt!"

Among the first to answer that challenge were A. W. Olliver, newly-appointed probate judge for Humboldt county, and W. H. Clagget, attorney-at-law. Purchasing a team and wagon, the men set forth from Carson City in December, 1861. Accompanying them was Sam Clemens, a 26-year-old newspaper reporter who would subsequently become famous as Mark Twain.

"On the 15th day," according to Clements' account of the trip in *Roughing It*, "we completed our march of 200 miles and entered Unionville, Humboldt County, in the midst of a driving snow storm. Unionville consisted of eleven cabins and a liberty pole. . . . The rest of the landscape was made up of bleak mountain walls that rose so high into the sky from both sides of the canyon that the village was left, as it were, far down in the bottom of a crevice.

"We built a small, rude cabin in the side of the crevice and roofed it with canvas, leaving a corner open to serve as a chimney. It was very cold and fuel was scarce . . ."

Unionville grew rapidly. By the spring of 1863, more than 200 cabins had been erected in the canyon, chiefly of log and stone construction. Milled lumber was scarce and high in price. (While newspapers of the period quote dimension stock at \$250 to \$300 per thousand feet, the Ernsts have records to show that lumber used in the two-story house still occupied by them was ox-freighted to Unionville at a laid-down cost of one dollar a foot!)

Roofs, for the most part, were thatched with wild rye grass. Tied in bundles, Old World fashion, the coarse material was laid on the roofs, butts down, and with rawhide thongs was attached to slats placed across the rafters.

Before her second birthday Unionville had become a bustling frontier settlement with an assessed valuation of \$187,763 and had been designated the seat of newly-organized Humboldt County. Flanking the single narrow street that wound for two miles through



Ruins of J. C. Fall Mercantile store. Closed in 1880, it was the last store to have operated at Unionville, Nevada.

the canyon, were 18 stores, including general mercantiles, meat markets, two pharmacies, jewelry stores, nine saloons and a brewery, two hotels, two express offices, four livery stables, a dentist and a newspaper.

Possibly no event in the history of the town was more heartily acclaimed than the birth of her first newspaper, *The Humboldt Register*. As the first ink-wet copies were lifted from the press on the evening of May 3, 1863, a rifle brigade formed ranks in front of the office and fired a salvo of nine blasts. By midnight, the new four-page publication and its editor, W. J. Forbes, had been saluted by 34 anvil salutes and gallons of imported champagne.

Prospectors and assorted camp followers continued to pour into the town throughout that summer of 1863. From the alkaline flat at the mouth of the canyon to the white crest of the Humboldts, property was being staked right and left, and the county recorder and seven deputies were busy recording claims. Everyone was speculating madly in "feet," as mining shares were then known, and promoters were doing a land-office business in stock certificates.

Yet only a handful of Unionville's mines had actually shipped any ore!

Editor Forbes, who was widely noted for his humor, had commented on this situation, and had expressed fear of widespread hardship when the rainy season got underway. After operating in the canyon for two years, he pointed out caustically, many owners of speculative mining properties had not yet driven their tunnels in far

enough to protect themselves from the rain!

During the camp's earlier years, virtually all outside commodities were freighted from Red Bluff, California, by way of Honey Lake, the summer of 1863 seeing ox-drawn freight wagons arriving in Unionville at the rate of a dozen or more daily. The Red Bluff *Independent* told of the departure from that place of 40 ox-teams loaded with supplies for the Humboldt towns, a single flour mill at Red Bluff having shipped to Unionville 85 tons of flour! Freight rates varied from seven to 14 cents per pound.

With failure of mail service to the Comstock towns, in the winter of 1863 Unionville's postmaster contracted with Wells Fargo & Company to transport the mail to Virginia City at 25 cents a pound, 35 hours being required to make the trip. Passenger fares over the same route were then \$30, but the following summer saw them boosted to \$50.

Mail transportation was greatly speeded in 1864 by the inauguration of a tri-weekly pony express between Idaho City, Idaho, and Virginia City by way of Unionville. With the clattering pony riders delivering Virginia City newspapers of the preceding day, isolated Unionville began to feel a oneness with civilization. Another stride in that direction, also celebrated in 1864, was the opening of telegraph service between Unionville and the outside world.

As it battled for cheaper and more rapid transportation facilities, the town in the canyon could not be expected to



Melvin and Martha Leonard, Unionville's oldest residents. Mrs. Leonard has lived in the town for 85 years, her husband for nearly 70.

know that its prosperity would pass with the Concord coach and the ox-team; or that the very progress for which it was striving would ultimately vanish.

First intimation of such development came when the townsmen learned that the long-awaited Pacific Railroad had been routed to by-pass them. Its rails would follow the Humboldt River, on the far side of the mountains.

On the Humboldt River fifty miles to the north, had sprouted a straggling settlement known as Winnemucca. No one had given much heed to Winnemucca, but with the new railroad affording the accessibility Unionville lacked, the river settlement launched a campaign to acquire the county seat.

It was a bitter fight. Defeated in county balloting, Winnemucca twice petitioned the state legislature and with its second attempt won a decision over Unionville. The older town appealed to the state supreme court, but lost; and in 1873, county officials removed their records to the river town. Thereby was terminated Unionville's 11-year reign as seat of Humboldt County.

Already demoralized by the railroad's snub and a disastrous fire which had destroyed one entire block of its business district, this added loss was more than the canyon town could weather. With exception of the Ari-

zona Mine, which had produced between five and six million dollars, other mines of the district had never been famous for their yield. With the silver market scuttled by government devaluation, the Arizona had been forced to close, and Unionville died on the vine.

The year 1880 found the town's once-teeming population shriveled to a bare handful of persons, and J. C. Fall, leading citizen of the canyon, merchant, and owner of the Arizona Mine, had closed his large general store and moved away. At the time of his departure, Mr. Fall stated that he had spent at Unionville more than \$3,000,000—most of which had come from the Arizona—and that he was unable to continue operations due to the government's ruinous discount on bullion.

The Fall Mercantile—now lying in ruins—was the last store to operate in the canyon.

"My parents and grandfather had come to Unionville during the first years of the boom," said Martha Leonard. "As it came time for me to be born, Mother went back to Illinois so I could arrive in 'civilized' surroundings. In 1869 — before I was six months old—she and I returned to Unionville. I attended school here, in the same building we still use for that

purpose. It was built in 1871 at a cost of \$2500 and school has been held there every term for 82 years.

"But now," she said sadly, "it looks as if there won't be another term. There are only a few folks left in town, and most of us are old. We're just naturally running out of children! Under Nevada law, a school may be maintained for three pupils — but it looks as if there won't be that many during the term to come."

The building referred to by Grandma Leonard was not Unionville's first school. The first schoolhouse, built in 1862 of adobe brick, seems to have been used for everything. Political conventions, dances, church services, and sessions of the town board were held in it. The Masonic and Oddfellows lodges and the Sons of Temperance used it for their meetings. During the Civil War it was the headquarters of both the strong Union League and the local chapter of Knights of the Golden Circle. Here, too, had met the Buena Vista Guards, a smartly-uniformed group of volunteer militiamen who lent their impressive presence to all patriotic celebrations and parades. Once in a while, according to old newspaper files, they even rode forth in pursuit of renegade Indians.

Strangely enough, said Grandma Leonard, Unionville never had but one church building, although a Sunday school had been organized as early as 1862 and religious services had been conducted by visiting pastors. One of these visitors—the Rev. L. Ewing, a reformed gambler from California — eventually dedicated himself to the task of providing the town with a church edifice. With the financial backing of Mr. Fall, the structure was brought to completion in 1871, and a 450-pound bell was purchased by public subscription.

"Mr. Ewing was soon called elsewhere," said Mrs. Leonard, "and it wasn't long until the church building had been sold and moved to Mill City where it was converted into a men's clubhouse and saloon.

Turning to Mr. Leonard who had come in from the garden and had been listening with interest, I asked at which point he had entered the Unionville picture.

After beginning his teaching career in the Badger State, in 1882, Mr. Leonard related, he emigrated West and secured a contract to teach the school at Dun Glen, a present-day ghost town about 25 miles northeast of Unionville. Still later he got the job teaching Unionville's school and held that position for 35 years. During

this time he brought the three Rs to all the Leonard children.

One of the Leonard daughters—now Mrs. Orfa Hammersmark—developed a desire to follow in her father's footsteps as a teacher. With Mr. Leonard's retirement, Mrs. Hammersmark stepped into his vacated post and for 19 years has taught the children of Unionville—thereby making a father-daughter combination of nearly 70 years of continuous teaching in this part of what now is Pershing County.

"It was at Dun Glen that I first met Mr. Leonard," put in Grandma. "I was only 16 at the time, but I knew he was everything I wanted in a husband—besides being very goodlooking!—and I didn't propose he should get away from me!"

"We were married in September, 1885—and in 1955, God willing, we will celebrate our 70th wedding anniversary!"

Bidding goodbye to these wonderful old folks, I drove back down the winding road—back past the time-mellowed ruins and deserted homes. At last I halted at the old graveyard near the mouth of the canyon.

Walking through that place of silent mounds, I found my mind whirling through an endless compote of stories related by my Unionville hosts. Stories of the days when Mrs. Ernst's grandfather ox-freighted from Sacramento to Unionville and her grandmother operated the pony express station at Buffalo Springs on the Idaho-Virginia City line; stories of later days when her mother raised poultry and vegetables and hauled them by wagon to the Chinese city in American Canyon, a dozen miles down the range from Unionville.

There were tales of duck hunting on Humboldt Lake, of notable horse-races and ball games, of terrific wind-storms and grand balls and midnight suppers and home-talent orchestra concerts from the steps of the Exchange Hotel.

Stories, stories! Yet I knew that all the remembered tales of Unionville's youth must be as nothing compared to the unrecorded history that had died with the men who made it—the unsung pioneers who were sleeping in these forgotten graves.

Before leaving the cemetery to head down the long lonely road into Buena Vista Valley, I turned for a last farewell look at the grand old ruin in the canyon.

The evening was young, but the sun had already slipped behind the high purple peaks of the Humboldt range and dark shadows—like the relentless years—had stolen in to swallow the town.

River Reports Indicate Continued Drouth for Southwestern States

Due to continued drouth in the Southwest, the runoff in the Colorado and Rio Grande this season will be even lighter than was predicted a month ago, according to the February report of the U. S. Weather Bureau. Following is the detailed report, based on precipitation, and snowpack in the high elevations:

COLORADO BASIN

Precipitation during February was much below normal over the entire Upper Colorado Basin. Monthly totals averaged about 30 percent of normal over the drainage areas in Wyoming and northern Colorado and about 20 percent of normal over the southern Colorado watersheds. Monthly percentages in Utah ranged from zero at lower valley stations to approximately 75 percent of normal over a small area of the high Uinta Mountains.

Colorado River above Cisco—The current water supply outlook for the Colorado and its tributaries above Cisco is not favorable and is approximately comparable to the March 1 outlook of a year ago. Runoff near 60 percent of average is in prospect for the Dolores, Uncompahgre and lower Gunnison drainages. For the remainder of the basin, 75 percent of average runoff is predicted. Precipitation for the balance of the season would have to approach the maximum of record in order for normal runoff to be realized.

Green River Basin—As a result of the light February precipitation, forecasts for the Green River Basin are down by 3 percent to 13 percent from those of a month ago. Streamflow of near 75 percent of average is in prospect for the Yampa and White River Basins in Colorado. Forecasts for the main stem of the Green River in Wyoming range from 71 percent of average at Warren Bridge down to 51 percent of average at the Wyoming-Utah border. As a result of spotty snowfall during the season, considerable variations may be noted in the forecasts for the Utah tributaries. These range from 88 percent of average for the Ashley Creek near Vernal down to 49 percent of average for the Price River at Heiner.

San Juan River Basin—The current water supply outlook for the San Juan River Basin is much less favorable than that of a month ago. Forecasts issued this month are 13 percent to 18 percent lower. Runoff for the

basin is expected to be near 65 percent to 70 percent of the ten-year average, based on the assumption that precipitation for the balance of the season will be near normal.

Precipitation during February averaged less than half of normal over the Lower Colorado Basin. The entire precipitation for the month occurred on the 14th and 15th. Highest percentages were observed for the Prescott-Flagstaff area where values ranged from 60 percent to 75 percent of normal. Over the upper Gila watershed in New Mexico, monthly percentages were only about 10 percent of normal.

Gila and Little Colorado River basins—The outlook for the November-June water supply for the Lower Colorado Basin is very critical. Snow cover is practically non-existent except above 8,000 feet and then mostly in shaded areas. Soil moisture conditions at the close of the month were critically dry for most areas. November-June runoff as low or lower than that of the recent drouth years is in prospect for the basins.

RIO GRANDE BASIN

February has been an excessively dry month over the Rio Grande Basin, and this coupled with abnormally warm temperatures has resulted in an unusually severe deterioration of the water supply prospects. Snow survey reports of the Soil Conservation Service and cooperating agencies show that the snow water content on a number of the New Mexico courses has actually declined during February—a rare occurrence. Extensive areas in the basin showed no measurable precipitation during the month; the balance of the basin was in the 10 percent to 50 percent of normal range. The over-all average for the basin probably falls below 10 percent of normal.

Rio Grande Basin—Forecasts for the basin are down by 10 percent to 27 percent from those of a month ago. Water-year flow at Otowi Bridge is expected to be near 600,000 AF, which is 58 percent of the ten-year average. Forecasts for the tributary streams are somewhat higher, percentage-wise.

Pecos River Basin—Also down, by 9 percent to 23 percent, are the forecasts for the Pecos Basin. November-June flows for streams of this basin are expected to be in the range of 53 percent to 80 percent of average.

Showers Bring Late Flower Display

MANY BLOSSOMS PROMISED IN MAY

"**T**HERE ARE always flowers, if you look far enough and hard enough," observed Jane S. Pinheiro the third day of spring—a spring which a month before had indicated little wildflower color in Southwest desert areas. After March rains, the blossoming picture brightened, and fair to good displays are promised in May for most regions.

Antelope Valley—"There have been wonderful soaking showers for more than a week now," wrote Mrs. Pinheiro, *Desert Magazine's* wildflower correspondent for Antelope Valley, California, March 24. "My guess is that there will be a fine wildflower display throughout the high desert area in April and May. Everywhere on the desert floor seedlings have popped up—Gilia, Lupine, Sand Verbena, Primrose of many varieties, Mimulus, Phacelia, Zygadene, Desert Hyacinth, Mariposa, Coreopsis, Scale Bud, Snakeshead and Desert Dandelion, Chia, Pin-cushion, Forget-me-not, Fiddleneck, Mentzelia and many more. It looks as though, after much dryness, this will be a beautiful spring."

Saguaro National Monument, Arizona — Equally pleased over the sudden change for the better were John G. Lewis, superintendent, and Benjamin J. Zerbey, ranger, of Saguaro National Monument near Tucson, Arizona. After good rains in March, the following plants promised blossoms for late April and May: Ocotillo, False Mesquite, Brittlebush, Marigold, Paper Daisy, Hedgehog Cactus and Filaree should reach their flowering climax in late April; Prickly Pear, Cholla and Palo Verde will be best in May, Saguaro by late May; Desert Poppy, Pentstemon and Larkspur are expected to blossom sporadically through April and early May.

"It appears that March rains will bring forth a fine show of Palo Verde blossoms," Ranger Zerbey wrote. "The cacti will be about equal in quantity to other years. Annuals will be colorful but not spectacular."

Joshua Tree National Monument, California—By late March, the Joshua trees were blooming in Joshua Tree National Monument. On March 16, reported Superintendent Samuel A. King, a snow storm occurred at higher elevations (3000 feet upward) which did some damage to fully developed blossoms; but most were still in the bud stage, so a good display was assured for the first three weeks in April. Ranger Charles Adams predicted that Cotton Thorn, Woolly Marigold, Large White Desert Primrose, Golden Gilia, Desert Mallow and Great Basin Blue Sage would be blossoming in Hidden Valley in May, and in Queen Valley, Small-leaved Amsonia, White Tidy Tips, Mojave Sand Verbena, Spiny Hop Sage and Annual Mitra. Jupiter Flat, Ranger Adams predicted, would be bright with the flowers of Lacy Phacelia, Paper Bag Bush, Yellow Turban, Scale Bud, Parish Larkspur and Purple Mat, and, at Salton View, May blossoms would decorate the Chia, Harebell Phacelia, Desert Aster, Fringed Onion and Adonis Lupine.

Lake Mead National Recreation Area—Prospects also appear brighter for wildflowers at Lake Mead National Recreation Area. Park Naturalist Russell K. Grater expects good flowering for Beavertail Cactus, Strawberry Cactus and Yucca, extending into May. Colorful displays of Desert Marigold, Desert Mallow, Datura, Prince's Plume, Desert Dandelion, Desert Aster, Sun-ray and Desert Chicory are also indicated.

Death Valley National Monument—From Death Valley comes the report of Chief Ranger E. E. Ogston. "Some of the Beavertail are in bloom now," he wrote March 29, "and within the next two weeks there should be a very good showing of this species. *Geraea canescens* (Desert Sunflower) is starting to bloom as well as a few Evening Primroses. Indian Painbrush is out at higher elevations." Ogston feared that few blossoms would remain until May.

Mojave Desert — "A few spindly little plants are already beginning to bloom," Mary Beal wrote from Daggett, California, late in March. She reported good gentle rains had brought out the young plants and a good flowering season was indicated.

"But there is one big flaw in the picture—and that not of Nature's making," she added. "Northern sheepmen are bringing great truckloads of sheep into our area and turning them loose to graze on our desert plants. So the beauty will not develop except in those stretches where the sheep have not spoiled the landscape." The Mojave Yuccas were blooming by April 1.

Apache Junction, Arizona—Correspondent Julian M. King doubts whether any annuals will last until May. "The cactus blooms probably will provide the outstanding color that month," he predicted. "Hedgehogs started blooming late in March, Staghorns should follow in early April and different plants of that variety may be expected to bloom through April and into May. Saguaro blossoms will be outstanding in May as well as those of the Prickly Pear. The flowering trees—Palo Verde and Ironwood—will bloom in May, and their spring color is spectacular. In the higher areas just to the east of us, century plant blossoms should be out in substantial numbers in May."

Borrego Desert, California — Barrel and Beavertail cacti promised good color for April visitors to Borrego State Park, but few of their blossoms were expected to last far into May. "Cholla and Torch cacti will probably bloom in April and most of May," predicted James B. Chaffee, park supervisor.

Casa Grande National Monument, Arizona—The long drouth in the Coolidge, Arizona, area was broken in March by gently soaking rains, reported Superintendent A. T. Bicknell of Casa Grande National Monument. If followed by warm weather, this would increase cactus blossoming in April and May, he hoped. Among species expected to bloom those two months are Saguaro, Hedgehog, Staghorn, Prickly Pear and Arizona Rainbow Cactus. May blossoms also should appear on Ocotillo, Palo Verde, Brittle Bush, Mesquite, Ironwood and Catsclaw.

Coachella Valley, California—As Jane Pinheiro remarked, "if you look far enough and hard enough" you will find flowers. Motorists along Highway 111 between Palm Springs and Indio will not find the brilliant carpet of wildflowers which Nature has in years past spread across valley dunes. But to the hiker who will leave the highway for the canyons, many blossoming plants will present themselves, singly and in small groups along the trail. Barrel Cactus should be in bloom in April and May, Beavertail, Prickly Pear and other of the faithful cactus clan. By mid-March the Ocotillo were flowering, their red-tipped stems brown from lack of rain. Good late March rains added hundreds of green leaves, and scarlet blossoms remained to make a good display, especially on the Palms-to-Pines highway from Palm Desert.



Deer Dance at Santa Clara Pueblo, New Mexico. One of the oldest and best known of the Rio Grande Pueblo rituals, it is performed in late summer or early fall as part of the elaborate hunting ceremonies of that season. The dancers lean on sticks to imitate forelegs and wear heavy antler headdresses. Photo by author.

Raphael's Last Deer Dance

In the sunbaked villages of the Pueblo Indians the age old religion of the people still guides their daily lives. Here is the story of the Deer Dance, one of the rituals through which these Indians try to reach their gods, and the part it played in the life of an aging tribesman in the pueblo of Santa Clara, New Mexico.

By CHARLES GALKENKAMP

RAPHAEL MEDINA sat looking into the clear water of the river.

Gradually his gaze rose to the far distant mountains to the east, their peaks shrouded in clouds made orange and red by the late afternoon sun. On their broad, massive slopes he could pick out patches of aspen trees already turning gold in the early autumn frost. The valley of the Rio Grande stretched out before him like a huge silver snake winding its way across the darkening desert.

Far up the valley, where the river disappeared into black lava mesas, the pueblo of Santa Clara slept quietly in

the twilight. Inside its sun red walls the people of his village were lighting fires for the night. Soon the harvest would begin and there would be little time to rest and to think. But for the moment Raphael's thoughts were locked deep within himself.

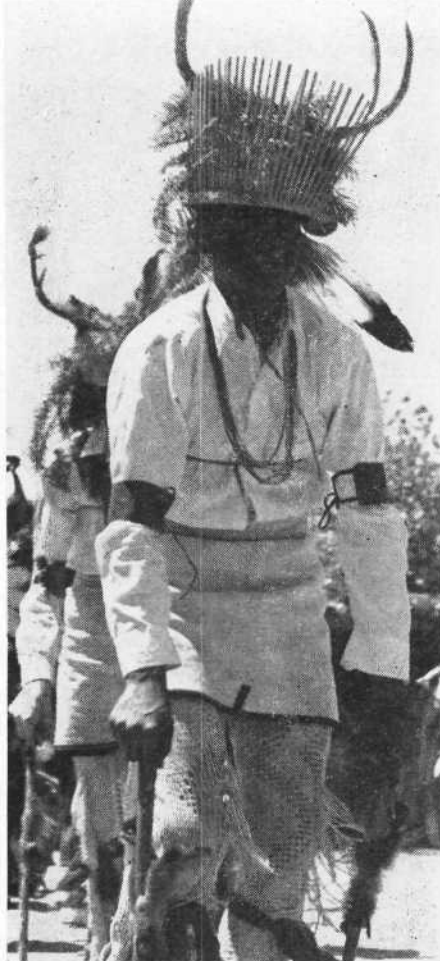
I had taken a small adobe house a short distance from Santa Clara which served as both studio and home for the summer. In the mornings I wrote or photographed nearby places of interest. Often in the afternoon I went for long walks down through the fields of ripening corn and along the river. Raphael usually accompanied me on

these walks or I helped him tend his crops. Always we laughed and talked, and I learned much about his people and how they lived.

I was surprised this day to find him sitting by the river, his face silent and thoughtful. He glanced up at me as I came near, but the usual warm smile was missing from his lips.

"What's the matter, Raphael?" I asked. "You look as though something is troubling you."

My question seemed to startle him. Seldom had our conversations gone beyond the point of casual, offhand subjects. Of personal lives we knew practically nothing about each other; it never seemed important there amid so much distance, such space. The beauty of the place itself was enough to draw us into a friendship heedless of problems, backgrounds and the like. But Raphael needed the confidence of



The dancers' faces are painted black, a startling contrast to the white of their costumes. The front of this young dancer's headdress is made of sticks lashed together with yucca fiber. Photo by the author.

a friend now, someone other than a member of his tribe; for this was, it appeared, a matter of deep personal disgrace. His weathered face grew tense as he began to speak.

Soon the harvest would be over, he told me. Then follows the time to hunt—first the deer in the mesas and canyons near the pueblo, later bear in the far off mountains. The last three years Raphael hunted tirelessly alongside the others but had not himself killed a deer. For weeks during each succeeding winter he searched the mesas, valleys and plains looking for deer. He had even ventured to the distant mountains alone to hunt along the snow covered game trails. Once he did see a giant fat buck standing in the snow just ahead of him. He raised his rifle, took careful aim and breathlessly squeezed the trigger. His bullet shattered a pine sapling inches ahead of the fleeing buck's shoulder—he had missed completely.

Word soon spread of Raphael's plight. Friends told him he was growing old and need no longer go to hunt with the others. But Raphael held deep in his heart a much greater fear. He had begun to believe the gods themselves willed that he should kill no more deer.

Once, four winters before, he had wounded a buck in the mountains and was forced by driving snow and darkness to leave the creature to die there in the cold, black night. All the way down the mountainside and across the wide plain below he thought he could hear the anguished cries of the dying buck high in the timber above. Never had he been able to rid his memory of those haunting shrieks, and not since that day had he killed another deer.

As the time to hunt again drew near, Raphael felt he must do something to appease the angry spirits and free himself of disgrace. He wanted once again to be able to share his kill among the others in the way of his people. More important was a promise made to his son, that the year of his first hunt he would wear a pair of moccasins sewn from the hide of a swift buck which Raphael had vowed to shoot for that purpose. By the next winter the boy would be old enough to take the old man's gun and go himself to look for game. None of this would be possible unless the gods relented.

Already the village was preparing a dance in honor of the deer spirits. It was Raphael's turn to participate in the ceremony and he felt compelled to do so. It would have been wrong and faithless not to dance when his time came; but inside him grew the dark apprehension that his presence would so offend the spirit of the wounded buck he would make it forbidden for any man of the village ever again to slay a deer.

When the old man finished talking he looked again at the now almost black water. His heart was heavy indeed and nothing could have demanded more concern than the thought that he had lost, perhaps forever, his favor among the gods. In the light of his faith, born of necessity and nourished by nature, Raphael had lived long and well. Each year he watched his son grow strong and tall like the corn in the fields. His home was always a happy place and his friends many. He accepted with quiet dignity all that life offered and had passed the years at peace with himself and his gods who dwelled in the mysterious place that was the world about him.

After a moment Raphael looked at me and spoke.

"Do you think it be wrong if I don't dance with my people this time?" he asked. "There are plenty others to dance and then I won't bring angry spirits to my village."

"Raphael," I answered hesitantly, "you've been a man of strong faith for a long time—not one of your people would deny that. If your faith had

never been tested before then I would say you might have some reason to worry; but no one can live as long as you without many such trials. Perhaps this is meant to be the biggest of them all, and to deny yourself the chance to conquer it would be a far greater wrong than leaving behind a wounded deer. Yes—go and dance with your people, but dance with more and greater faith than anyone else. I somehow feel that the spirit of the wounded deer will understand now."

"Maybe you be right," replied Raphael. "I must think much about what you say before the time to dance comes."

We shook hands and the Indian made his way slowly across the desert toward the pueblo. I watched until he faded into the falling darkness, then sat a long time on the river bank wondering if I had said something to help ease the old man's mind.

Four days later the time of the Deer Dance arrived. It was a cold, clear morning and the wind blew in short chilling gusts sweeping little clouds of yellow dust along before it. When it stilled, blue streaks of fragrant pinyon smoke floated skyward from the village. The plaza, the houses and corals were bathed in soft light from the morning sun which promised to warm the air as the day grew longer. There was restlessness everywhere, even in the wind and dust.

A few people had come from nearby Santa Fe and Taos and were crowded together in patches of warm sunlight across the plaza. Soon their numbers began to swell with artists, tourists, priests, Indians and many others who had traveled far to witness this ancient ritual. They lined the plaza and rooftops as they have done for years to experience for themselves a people's age old supplication to Nature—the mother of all life.

Today the Indians were to dance in honor of the Deer Spirit. They were to pray that the bucks grow strong and heavy and the does remain fertile. It was never by will but of necessity that the deer were slain at all, thus the spirits of the dead creatures were to be venerated in dance and song. It was, in essence, a living tribute to the many small lives that must be given to preserve the unbroken spirit of everlasting life in all.

Soon the throbbing of a deep drum could be heard inside a distant kiva. All eyes turned expectantly to catch the first sight of the dancers coming from the great ceremonial chamber. To the Pueblos the kivas represent the underworld from which all life originally came, and it is said that many of their gods still dwell in this underworld, therefore in the kivas as well.

Most rituals begin in the kivas; for it is there, in this sacred keeping place of Pueblo religion, that the gods can most surely be awakened to the prayers of the people.

A feeling of hushed excitement stirred the waiting spectators. Someone had caught sight of the dancers making their way to the plaza. From the roof of the kiva they appeared, one after another, their grotesque costumes against the brilliant sky like tiny gods coming up from the world below. Indeed, that is exactly what they were; for their faith was supposed to transform each dancer into the image of the spirit they sought to appease. To the beat of a single drum they walked in reverent procession into the plaza amid those of us who waited in respectful silence for the rite to begin. When they had all entered the plaza the drum stopped and quiet fell upon the village.

I counted close to forty dancers in the plaza, all men and boys heavily bedecked in costumes symbolic of the deer. They wore beautifully made white leggings and white dance kilts tied about the waist with woven sashes. Their moccasins were of bleached deer skin trimmed with animal fur. Above the kilts they were clothed in ordinary white shirts with blue and yellow arm bands. The entire costume of stark white was broken only by their black painted faces half hidden under a massive headdress of deer antlers, eagle feathers and evergreen boughs — the symbol of lasting life. Each dancer carried two straight sticks with which he imitated the forelegs of the deer, and his steps echoed the sound of tiny bells, turtle shell rattles and heavy necklaces of turquoise, silver and shell.

When the great drum began to thunder once again a chorus of bronzed old men started to chant in low, funereal unison, and the dancers moved slowly into two lines up and down the length of the plaza. Soon their feet were stamping the rhythm of the drum beats in the dry dust below until it swirled around their black faces almost masking them from sight. As the chant became more intense, the chorus raised their hands high in the air and began to tell with gestures the story of many good things in the people's life: birth, falling rain, growing corn, and the death of many deer during the weeks to come.

Then, suddenly, in the midst of this solemn prayer there sprang forth two Indians dressed as hunters. One carried a rifle, the other a bow and some arrows. They plunged into the lines of dancers sending them scattering in all direction around the plaza with the nervous movements of surprised deer

in the forest. For a moment the deer dancers seemed to be in complete chaos, then they moved farther down the plaza, reformed their lines and continued to dance. No sooner was everything again in order when the same erratic drama was repeated and the deer came scampering back.

The steps and patterns were, in fact, a kind of dance drama depicting the struggle between the hunter and his prey. The movements of the deer dancers became increasingly angry and frightened. Their heads bobbed up and down in time to the drumming and they pawed the dust with the sticks. When one of the hunters came too close they would fling their horned heads in the sky and leap away to a place of more safety.

Despite the confusion and excitement of the drama, never once did it seem to lose its form and meaning, never was the rhythm of the chant swallowed up in the impassioned spectacle. Before all who watched passed the minds and bodies of a people carried to the heights of spiritual animation by a respect for the elements of nature thought so necessary to existence that it had centuries before given birth to these dances, each of which was an ingenious overture to the dark mysteries of life somewhere beyond the limits of human knowledge.

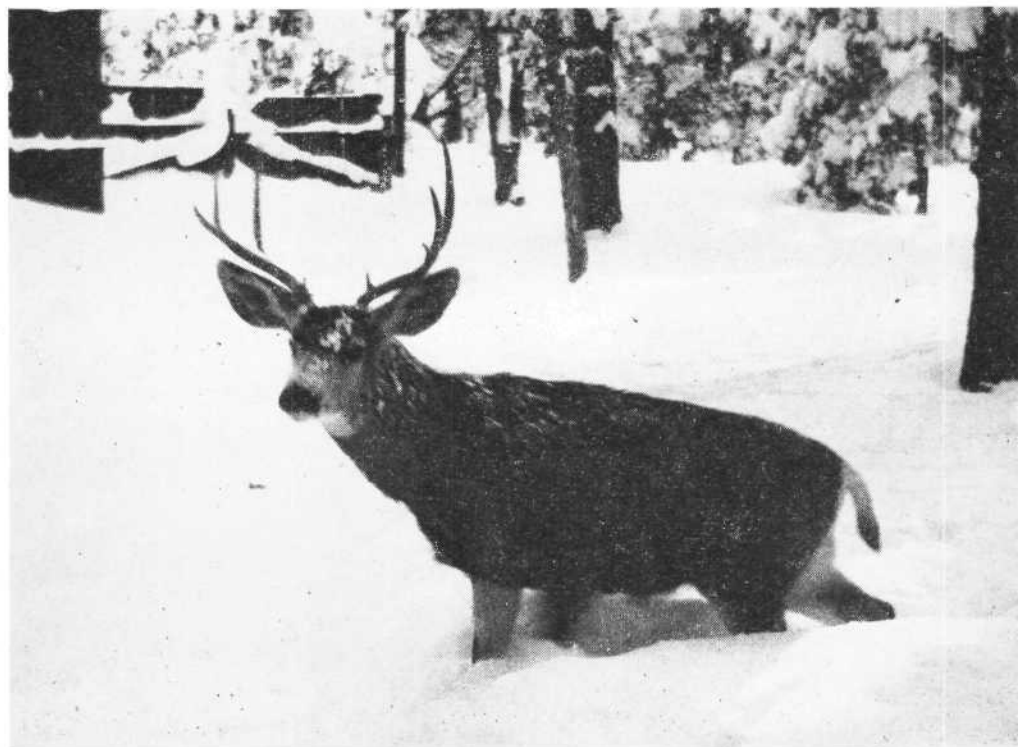
It was not long after the dance had begun that I saw amid the swirling

dust the lean, aging form of my troubled friend, Raphael Medina. His head was bowed under the weight of the heavy headdress and his hands clutched the deer-sticks with uncertain, wavering strength. I was glad to see him there among his people, dancing in the manner of his father and grandfather before him. To everyone he seemed sure of himself, possessed of equal faith. I doubt that anyone other than myself knew what he actually felt within him—how much he feared his very presence there in the sacred plaza on this day. I somehow felt his courage would find reward, but I was none the less apprehensive of events to come. If Raphael did not kill a deer this winter, I would surely witness and feel some responsibility for the destruction of an old man's spirit.

All through the long day the ceremony went on. Eight times the deer dancers disappeared into the dark kiva to rest and pray, then return to the plaza to repeat again the drama that held me in motionless wonder. Tourists came and left, but I wanted to remain for the supreme moment I knew was yet to come. I had not long to wait.

Just as the sun's rays were turning to gold and the last group of dancers ended their ritual, there was heard the sudden, sharp staccato of rifle fire in the hills behind the pueblo. Quickly, with-

Raphael had wounded the deer and, unable to follow the bleeding buck through the snow, had left him to die a slow painful death. He was afraid his deed had angered the gods so they would not allow him to kill another deer, and he feared his participation in the pueblo's Deer Dance would spread their wrath to all the members of his tribe.



out warning, a dozen Indian hunters rushed into the plaza, crouched to take aim at the startled deer-men, and began firing into them. These were the hunters of the pueblo who would soon go into the mountains and forests, and this was the long awaited bountiful slaughter they hoped to make.

As the bullets whined above the deer dancers, they pretended to drop as though hit by the stinging fire. Some slumped down motionless; others leaped high in the air and crumpled in a seemingly lifeless mass in the dust. Spectators scrambled for safety as the hunters dashed to claim their victims and carry the limp bodies into the kiva. The whole scene was tragically beautiful, surpassing any play I had ever seen. The deer had been slain, their spirits honored by the reluctant tribesmen, and the Deer Dance ended.

Night fell again upon the village, leaving the men to think of preparations for the first hunt which was soon to follow. I did not see Raphael again that evening or for several days after. I believe it was fear that kept him from those who were shortly to witness what was to be the greatest test of his life-long faith.

No one saw Raphael until the day of the hunt the following week. A light snow had blanketed the distant mountains which, it was said, would drive the deer down near the pueblo into the lowlands where feed was still abundant. The day before excitement in the village had been heightened when an Indian reported that deer had crossed a trail in front of him as he was bringing his cattle down from the mesas. Meetings of the hunting parties were held all over the pueblo that night, but Raphael—the oldest hunter of them all—was not among them. He sat alone in his home waiting for the dawn that never seemed to come.

The weather which brought the snow had also caused several days' delay in the hunt. I had planned to leave to spend the winter in Albuquerque on that day, but wanted, if possible, to remain until Raphael returned. I had until the morning of the second day before my schedule would force me to leave Santa Clara.

The next morning I came early to the village to watch the small groups of hunters leave. Some rode away on horseback, others in dusty trucks loaded with blankets and sleeping bags. They took rifles, sacks of food, and most of them carried tiny stone hunting fetishes and pouches of sacred corn meal. In a distant corral I saw Raphael saddling his horse and checking to see that his rifle and gear were secured for the long hard ride ahead. His face

still had that grim, set look of determination I had seen the day of the dance. He went about the last minute tasks with the cold precise manner of a condemned man. There could be little doubt that Raphael's very soul would die within him if he returned this time without a deer. For four long years he had waited faithfully, danced, chanted and prayed that the gods forgive him his crime against the wounded deer. There was nothing left to do now but to go and see.

Late that afternoon the first hunters returned bringing with them three fine heavy bucks killed in a canyon a few



miles from the pueblo. Before long another party arrived with two more. There was no sign of Raphael. A friend told us he had wandered off from his party just after noon and had not returned by the time they were ready to leave.

"Raphael acted funny," the young Indian said. "Kind of quiet and unhappy about something." There was nothing to do but wait.

The evening passed slowly. I returned to my house to pack a few last things and get them in my car. Then I went to Raphael's home to wait with his family by the fire. We ate and laughed, saying nothing about Raphael and the serious task he was about. We all felt a certain tension but did the most we could to dispel it. Outside the quiet was broken now and then by excited laughter along the narrow streets as more hunters returned bringing in their bounty. When Raphael had not come by midnight, we felt sure he would sleep out somewhere. His wife and son went to bed and I spread my bedroll on the floor near the fire.

When I opened my eyes again, the sun had climbed high above the snow covered mountains. The pueblo was alive with activity — skinning fresh killed deer and hanging the red meat out to dry. By then most of the men had returned, though not all had brought back deer. There were many days left for them to try their luck.

The morning wore on and I knew that I must be on my way. Raphael's wife, Dora, promised to write if he got his deer, but there was anxiety in her voice even as she spoke. After saying goodbye to the friends I had made in the little village, I started down the rough, dusty road that winds its way toward Espanola away from the sun baked walls and green fields that had been my home for three months. I left behind many memories of the wonderful hours I spent there, but most of all I was leaving something unfinished — the battle which Raphael Medina, my friend, waged with his own faith and his deepest convictions.

I had driven about three miles from the pueblo and my mind was buried deep in thought. Suddenly I heard a shout from high in the rocky mesa to my left. I looked up. There among the massive stones stood an old Indian man, his hand waving a friendly farewell as I drove past. I waved in reply, and strained my eyes to see who it was. A careful look at his tired but smiling face and I knew it was Raphael coming home at last. I looked again and could hardly believe my eyes. There, slung over his saddle, was a huge lifeless buck—a creature with heavy antlers that jutted into the bright sky like sharp, black swords. I laughed out loud with happiness, and up on the hill Raphael's face twisted into a broad grin. Our eyes met with understanding and he turned to walk away toward his village. I started on my way again feeling that I would like to return again next winter—to take Raphael's place when the time of the Deer Dance came.

CHANGE OF ADDRESS

Desert Magazine is mailed to subscribers on the 20th of the preceding month (unless the 20th happens to fall on Saturday or Sunday, and in that case the mailing date is the 22nd.) In order that there may be no delay in delivery to subscribers changing their addresses, it is requested the new address be sent in by the first of the preceding month. Thanks for your cooperation. We want you to get your Desert on time.



Much of the climbing was done on exposed faces. Here, Ed. Gammon is leading the way up the ancient crater.



Lillian I. Casler and Willard Dean pause for a rest near the summit. Dean is chairman of the Desert Peakers.

We Climbed an Old Volcano...

Mopah Peak in the Turtle Mountains of Southern California has long been a landmark for lost-mine hunters, prospectors and gem stone collectors. More recently this ancient volcanic crater has become a challenge to the mountain-climbing fraternity, and here is the story of a recent ascent by members of the Sierra Club of California.

By RANDALL HENDERSON

Map by Norton Allen

LATE IN February this year I was a member of a little group of Sierra Club members who reached the summit of Mopah Peak in the Turtle Mountains near the Colorado River in the southeastern Mojave Desert.

We were not the first to scale this ancient volcanic crater, or what is left of it, for the forces of erosion have broken down most of the walls of the vent from which lava once spewed forth on the surrounding terrain. What remains today is a great pinnacle of

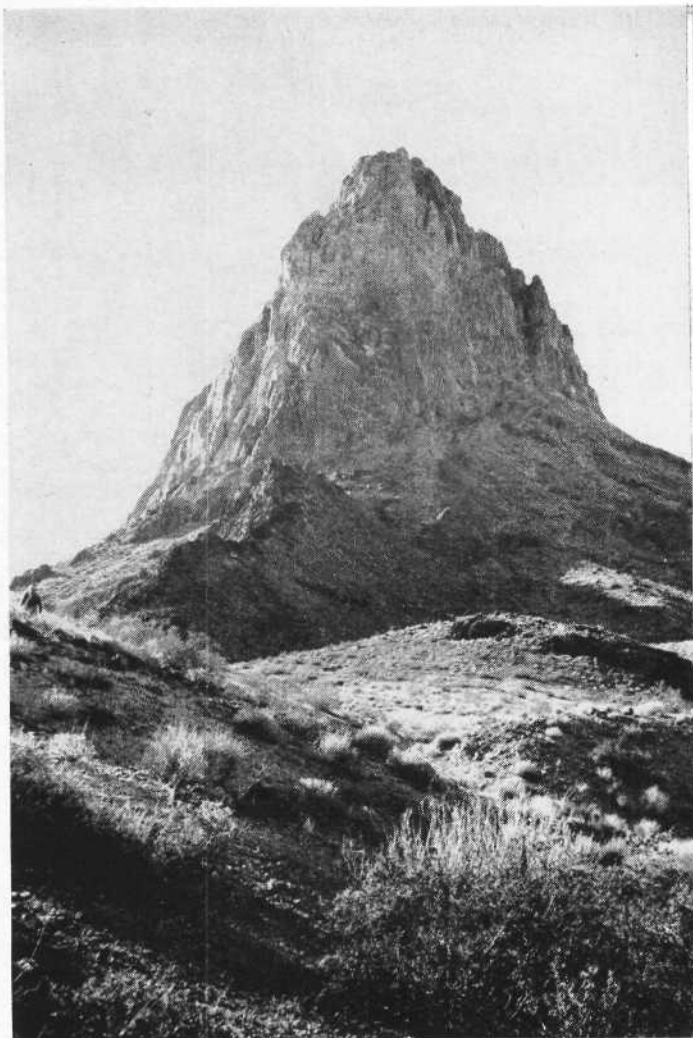
igneous rock which serves as a landmark for lost gold hunters, prospectors and gem collectors—and as a goal for those mountaineers who like to try their skill in difficult places.

For 75 years lost mine hunters have been drawn to the Turtles by stories of a fabulously rich placer field which once yielded great nuggets of gold—and then was lost. This is the locale of the legendary Lost Arch mine.

Then, 15 years ago when the new fraternity of hobbyists known as rock-hounds began to swarm over the des-

ert terrain in quest of semi-precious gem stones, some one reported that chalcedony and agate were weathering out of the seams in the volcanic rock of the Turtle Mountains—and today collectors are still climbing the slopes and combing the surrounding mesa—and getting lovely specimens of creamy chalcedony roses. This is a gem field that will never be exhausted.

My first trip to the Turtles was in 1940 when I accompanied Louise and the late Arthur Eaton on a rock collecting trip to the newly discovered chalcedony field. We camped along an arroyo five miles from the base of Mopah Peak at an elevation of 1100 feet. That great spire of rock was a challenge I could not resist, and while other members of the party roamed over the desert and climbed the lower slopes in quest of gem specimens, I explored the possibility of reaching the



Mopah Peak from the northwest side. This route was abandoned in favor of a more feasible ascent from the southwest.



At the summit, left to right, seated: Tom Corrigan, Lillian I. Casler, Ed. Gammon, Pauline A. Saylor. Standing: Bob Bear and Willard Dean.

summit. The northeast face of Mopah is almost vertical and I contoured around the base to the south face where there appeared to be a feasible route upward in a great couloir or gully of broken boulders. It was a hand and toe ascent and as I worked up over the loose debris I came to the conclusion that this was the vent of an ancient crater with the south rim entirely eroded away. Shoulders of rim-rock cut off my view both to the east and to the west.

Eventually, I reached a point where the climbing appeared too hazardous for a lone ascent—and turned back where my altimeter registered 3260 feet.

Early this year the Desert Peaks section of the Sierra Club scheduled Mopah for one of its week-end climbing expeditions, and as I was to be a guide on the trip I went out the previous week to see if I could find a route to the top.

Camping at an old stone corral near the base of the mountain, Cyria and

I had the same experience Edmund Jaeger wrote about in his "Desert Campfires" story in the April issue of *Desert Magazine*. The rocks out of which we had improvised a little fireplace began to explode. I realized then that they were the same type of andesite Jaeger had described, and hastily replaced them with other stones.

On this trip I followed approximately the same route as in 1940, but again I was turned back within 500 feet of the summit. I was sure I had climbed higher this time than on the previous attempt. I crawled into a shallow cave to rest before starting down the mountain. There was evidence that bighorn sheep had been using this cave for shelter.

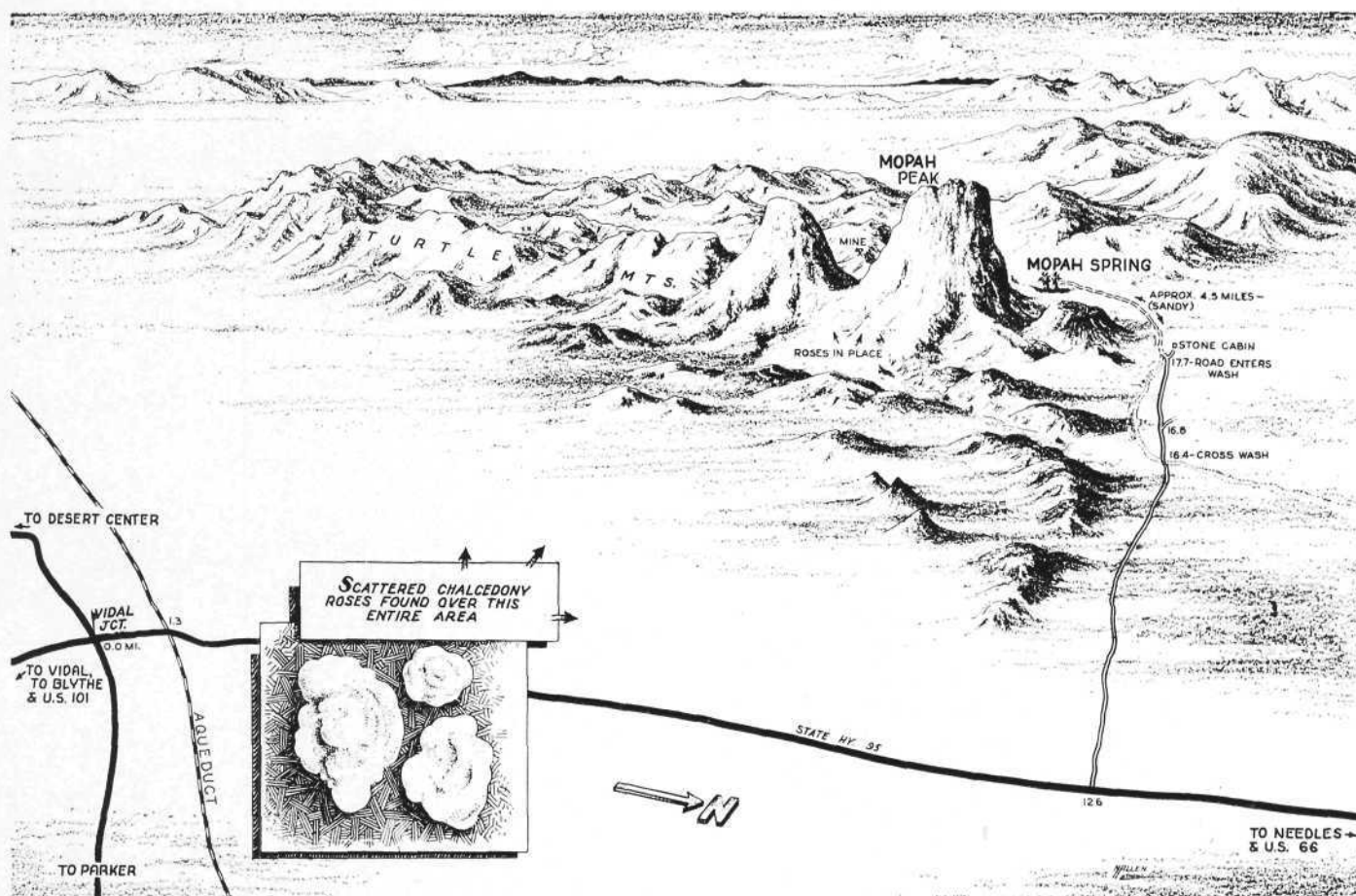
A loose rock in a little niche in the wall of the cave attracted my attention, and when I pulled it out there behind it was a little match box containing the card I had left there February 25, 1940, when I turned back at this same place.

A week later I camped near the old

stone corral again—but on this Saturday night there were a dozen other campfires, and bedrolls of 42 members of the Sierra Club and their guests were scattered among the rocks on the desert floor at the base of the Turtle Mountains.

Bob Bear of the Desert Peaks group was leader of the party, and among those present was Willard Dean, this year's chairman of the Desert Peakers.

Within the membership of the Sierra Club, a California organization of which John Muir was one of the founders, are various sections with special interests—the Rock Climbers, the Ski Mountaineers and the Desert Peaks clan. Throughout the year these mountain climbing folks schedule weekend and vacation trips to the various summits in California and Arizona. Between the Tehachapi Range and the Mexican border are 192 peaks with elevations over 5000 feet, and the goal of all Sierrans who like mountaineering is to become members of that small group which has climbed 100 of these



peaks. It is a little game initiated by Weldon Heald in 1945—and several of the Club members have qualified.

Not all the Sierrans at the campfire Saturday night were there to climb Mopah Peak. Some of the women had brought their small children, just for a weekend outing on the desert, and among those present were rock collectors who had joined the Turtle Mountains expedition to hunt for chalcedony, or gather garden rocks.

Our camp was five miles from the base of the Peak, and a rough prospector's road winds among the rocks and through the sand in the bottom of Mopah dry creek to within a mile of the base of the monolith. The next morning two jeep station wagons transported 21 prospective climbers up the wash to undertake the ascent.

Since Desert Peaks members generally do not go in for the rope-climbing technique of the Rock Climbing section, I wanted to find an easier route to the top than the one where I had twice failed.

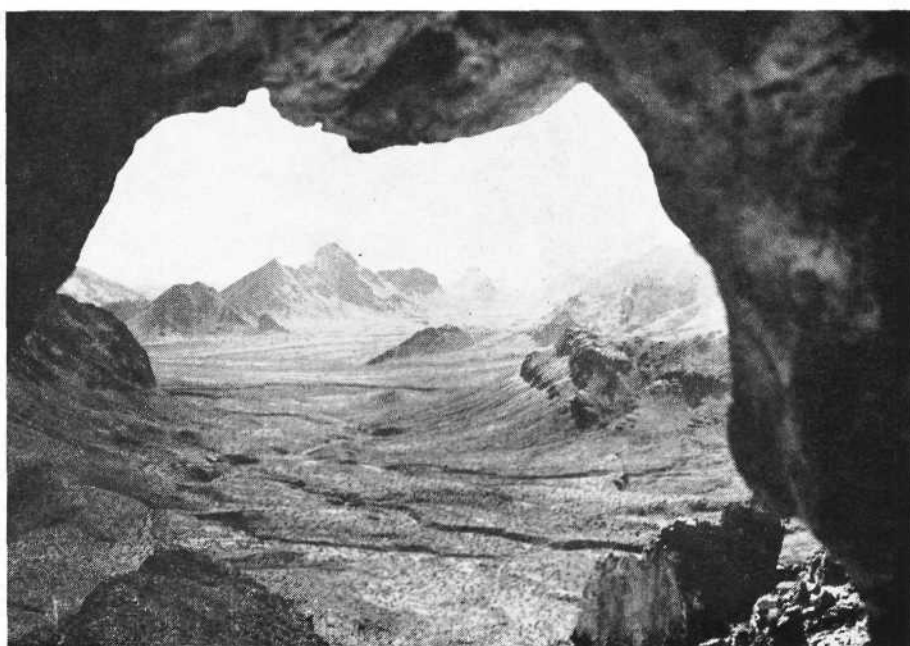
Tom Corrigan, who had once reached the top of the Peak and had done considerable exploring of the mountain, suggested that we attempt the ascent by way of a steep couloir on the west side. That was our first objective, but it soon proved impracticable for so large a party with limited experience in rope-climbing.

Then we circled the base of the mountain to the southwest approach where the face of the old crater appeared to offer adequate hand and toe holds. This was the route that finally brought success to seven members of the party. But it was a slow tedious climb with frequent use of the rope for security. It became evident there would not be time enough in one day

for all the members of the party to work their way up over the route, and a majority of the party continued around the base of the crater in quest of another or a better route to the top.

With Tom Corrigan and Ed Gammon taking turns in the lead, seven of us slowly worked our way to the summit. The volcanic rock in this massif is highly fractured, and we had

Looking out on the Turtle range from one of the many caves in the volcanic rock. These caves are used frequently for shelter by bighorn sheep.



to test each hand and foot hold carefully before trusting our weight on it.

We began the ascent of this route at 10:45, and at 1:10 we were looking down on the world from the highest of the three pinnacles which crown the ridge of the old crater.

There was a small cairn at the summit, but no record of previous ascents. The elevation was 3675.

Mopah is one of twin peaks. The other, approximately the same height, is a pyramid type of mountain lacking the challenge to climbers offered by Mopah.

From the summit we were looking down on Mopah Spring, a waterhole well known to all prospectors in that region, located in an arroyo northwest of the Peak. When I photographed this spring in 1940 there were two Washington palm trees there. Today the two palms are there, with four younger members of the same species growing nearby.

At the top of Mopah, one has a grandstand seat overlooking a vast panorama of Mojave desert terrain. To the east are the Whipple Mountains, with Lake Havasu occupying a canyon which was once the course of the Colorado River. To the South are the Riverside and Maria Mountains which mark the boundary between the Mojave and Colorado Deserts. To the west are the Old Woman Mountains and to the north the Sacramento Mountains, with Needles just beyond.

Perhaps the first person to climb Mopah was a Chemehuevi Indian in the 1870s. This was told to me by Charles Battye of San Bernardino, California. Battye is a veteran railroad man, now retired, who for many years was stationed at Needles, California. He spent his off hours exploring that desert area and became intimately acquainted with many of the Indians living in Chemehuevi Valley—the valley now occupied by Lake Havasu, the reservoir behind Parker Dam in the Colorado River.

In September, 1940, *Desert Magazine* published a map of the Turtle Mountains in connection with a field trip story about the chalcedony gem field. At that time we marked the volcanic crater as "Moabi" Peak, because that was the only name I could find for it on the old maps available.

Following the publication of this map, Charles Battye wrote, advising that the name properly should be Mopah, as he had distinctly heard the Chemehuevi Indians pronounce it that way. Battye stated that his Indian friend, Hi-ko-rum, related the following history: In the 1870s a member of the Chemehuevi tribe was being sought by U.S. soldiers from Fort

Yuma on a charge of homicide. A lieutenant and a half a dozen troopers came up the Colorado to Chemehuevi Valley on a steamboat. The culprit, learning of their approach, fled to Mopah Spring, and with his Winchester, some water and food, climbed the peak and defied his pursuers.

The lieutenant, after surveying from a safe distance the impregnable position of the fugitive, and not caring to sacrifice the lives of his men, held a parley with the Chemehuevis. He promised them that if the man would surrender, no harm would befall him, and as payment for their good offices he gave the tribe a substantial quantity of provisions.

Everything worked out according to plan, and the steamboat with the soldiers and provision left for Yuma. All arrived safely except the Indian. They reported he had fallen overboard and drowned.

Later, Capt. Polhamus, skipper of the steamer which transported the party, told Battye that the report was

a mistake, for he had seen the Indian many times after that.

According to Battye there were no palms at the spring when he first saw it 50 years ago.

Those who reached the top on this expedition were Bob Bear, Willard Dean, Ed Gammon, Tom Corrigan, Pauline A. Saylor, Lillian I. Casler and the writer. We added a few rocks to the cairn and left a small note book there as a register for future climbers. By 5:10 we were back at base camp again, having come down with the use of ropes by a route inside the couloir by which I had twice tried and failed to reach the top.

For those who like rugged climbing, Mopah will always be a challenge. Probably a score of routes to the top will be found where the ascent could be made without the use of pitons or the other paraphernalia of the rock-climbing fraternity. But it will always be advisable to use ropes for security, for much of the climbing must be done on exposed walls.

Photo Contest for May . . .

It is the driest year on record for many Southwestern areas, and that means the photographer will have to look carefully for good wildflower pictures. But, though the annuals may lag and their blossoms once open be scraggly and small, the cacti will be flowering for "business as usual" in the camera-posing field this spring. May and June are the best months.

A good cactus blossom shot may win Desert Magazine's May photo contest—or an animal study, a sand dune pattern in black and white, contrasts in shadow and light on a canyon wall, the character-lined portrait of an Indian patriarch. Any subject is eligible as long as it comes from the desert Southwest.

Entries for the May contest must be in the Desert Magazine office, Palm Desert, California, by May 20, and the winning prints will appear in the July issue. Pictures which arrive too late for one contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

Address All Entries to Photo Editor

The Desert Magazine

PALM DESERT, CALIFORNIA

ON DESERT TRAILS WITH A NATURALIST-II

Exploring the Kelso Dunes...

"A thousand wonders are calling. Look up and down and 'round about you." Edmund Jaeger early heeded John Muir's advice and has spent a lifetime exploring Nature. In this second story in a new Desert Magazine series, Jaeger tells about the Kelso Dunes in the Mojave Desert of California—a desolate yet beautiful expansive desert sand pile which miraculously sustains plant and animal life.

By EDMUND C. JAEGER, D.Sc.
Curator of Plants
Riverside Municipal Museum
Map by the Author

FAR TOWARD the eastern end of San Bernardino County of California, just beyond Soda Lake where the Mojave River finally ends its long northeastward course across the Mojave Desert, lie the high curving hummocks of the Kelso Dunes, sometimes referred to as the Devil's Playground. They cover an area of at least 57 square miles and the highest parts reach an elevation of at least 500 feet above the surrounding desert floor which marks them as the highest sand dunes in California.

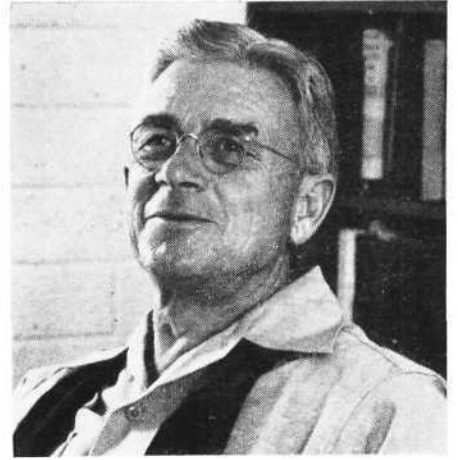
This extensive ripple-surfaced deposit of aeolian sand is seldom seen except by persons traveling on the Union Pacific trains. The railway passes along their northern side but no major highway lies within many miles of their boundaries; high ridges and bold mountains cut off a view of them from almost all sides. Because of this isolation, these remarkable hills of clean shifting smooth-textured sands have retained their primal beauty in a very marked degree. Only the most primitive roads lead near them and some of these are very treacherous because of loose sand and rock. However, persons willing to hazard the trip may reach them by going north from a point near Amboy or south from the railway station at Kelso.

The sands of which these dunes are composed are a very light tan in color and are supposed to have been derived from the deposits of loose sand along the lower reaches of the Mojave River. Strong winds blowing from the west carry this sand and, because of peculiar local eddies in the wind currents, deposit their loads here. During the years they have built up the sands higher and higher until this extensive accumulation has resulted. The sands appear to be very deep—not a mere mantle hiding some high rocky core.

Because of their width few persons have ever ventured to cross these dunes of dazzling sand, either on foot, on

horseback, or even by jeep. Only the coyotes, kit foxes and lonely wandering bob cats really know much about them. These hardy mammals travel widely over the smooth sand at night. Cleverly they stalk and gobble up rodents, such as kangaroo rats (*Dipodomys*), pocket mice and white-footed mice. The rodents are able to live in the dunes in fair abundance because certain plants such as perennial grasses, spring's annual flowers and a few hardy shrubs yielding seeds and fodder can subsist on the near humus-void sands. The plants also furnish food for a few specialized insects which, in turn, make life tenable for several species of large and small lizards. Both insects and lizards as well as rodents in turn fall prey to sidewinders, those small rattlesnakes specially adapted to progression over loose sand. Yes, here as in so many places, life presents a vast and

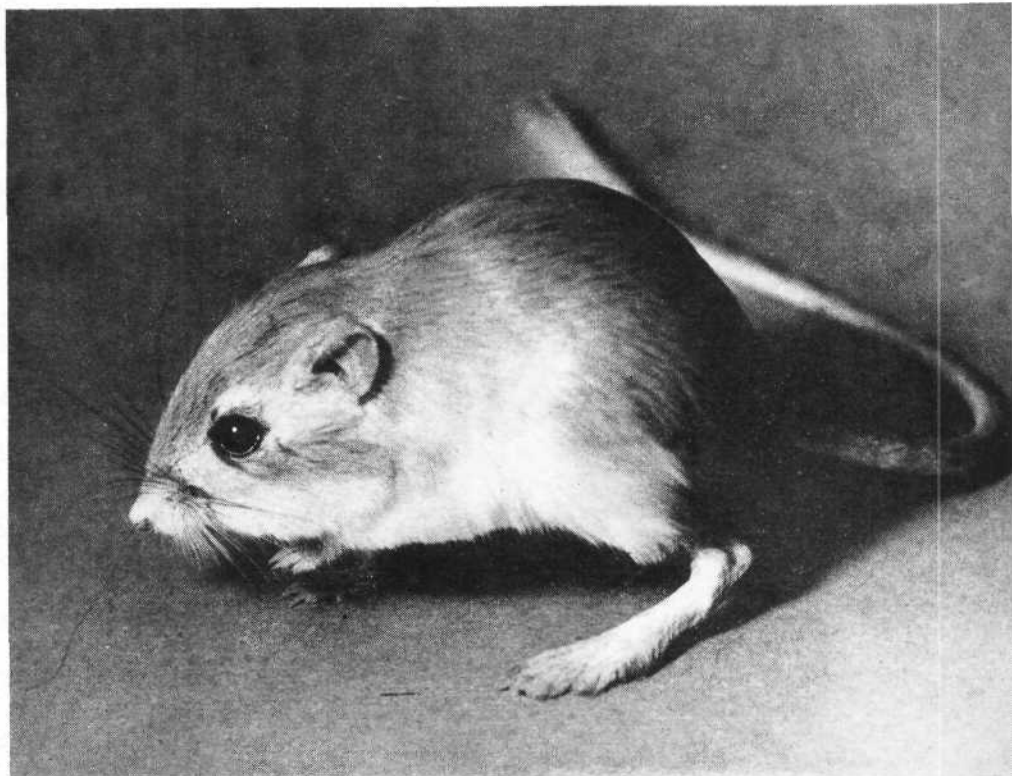
Dipodomys, the kangaroo rat, and a few other rodents are able to live in the barren Kelso Dunes because certain plants, such as perennial grasses, some spring wildflowers and a few hardy shrubs yielding seeds and fodder, can subsist on the near humus-void sands. Photograph by Gayle Pickwell.

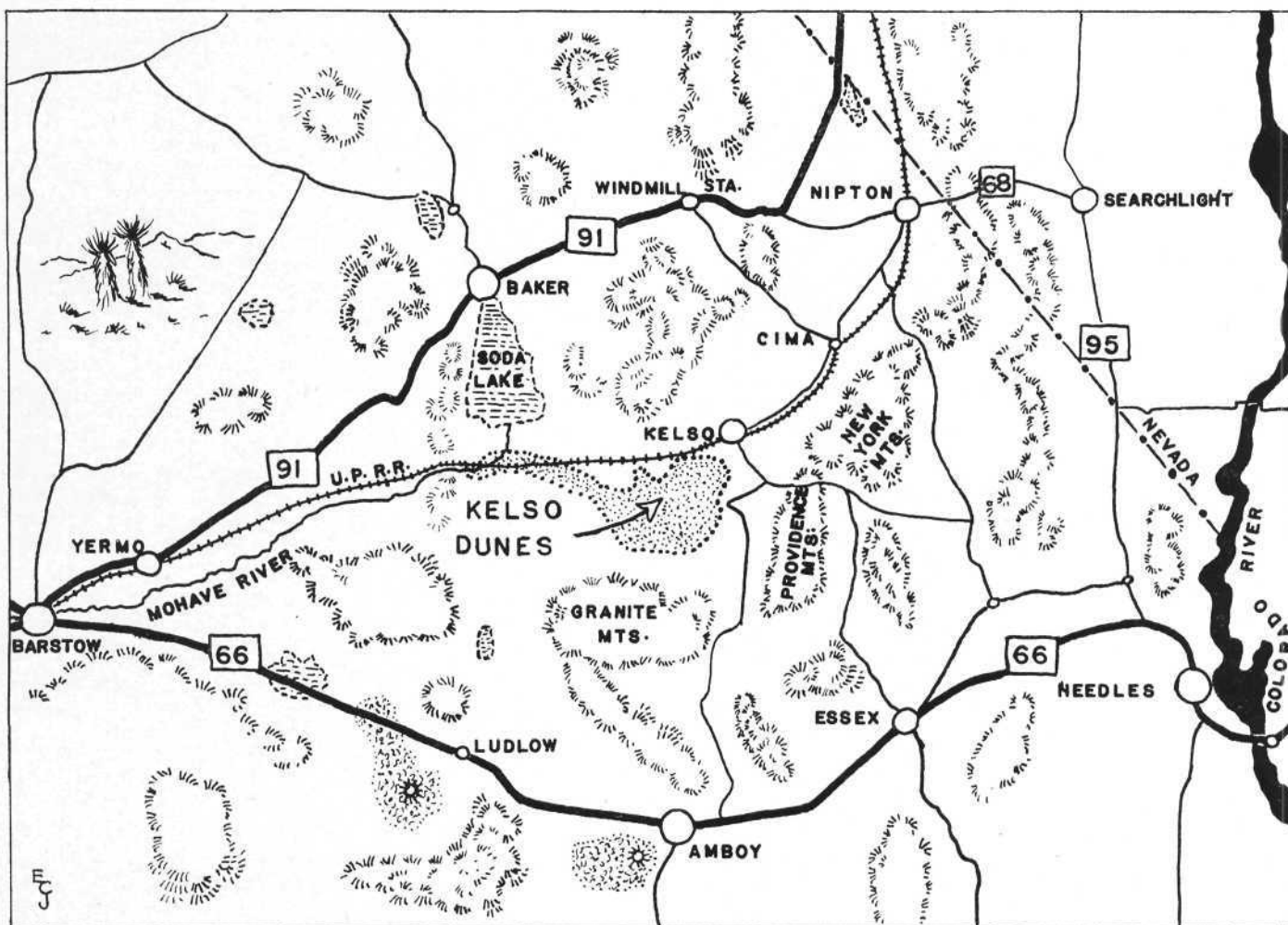


Edmund C. Jaeger

complicated pattern of conditions for existence.

I have spent enough time investigating the Kelso Dunes to know there is in spite of their apparent barrenness a surprising amount of life of various kinds. Of this the best evidences are the numerous animal tracks of different kinds. Life, both plant and animal, is most abundant about the fringe area where there is the greatest abundance





of vegetation. Those curious darkling beetles, often best known under the names of Pinacate beetle, stink-bug or circus-bug, probably penetrate farther toward the center of sand desolation than any other creature. They are hardy insects and wide and constant wanderers.

Far toward the center of the hills of sand we may also see the flashing sheen of the dragonflies' wings. Although it is many miles from the water where these dextrous flying insects emerged from the egg, they are fairly frequent visitors here and find sufficient flies or other small flying insects to sustain them.

In the glorious spring season following good winter rains and occasional snows, there is often a magnificent covering of colorful wildflowers, especially in the broad swales and on the lower border slopes.

Only last autumn while walking over the southern portion of the sun-flooded sands I found blooming a shrubby pink-flowered penstemon which has evoked much interest among botanists. It is a possible new species.

Here in spring I have collected the small-flowered sand verbenas (*Abronia micrantha*) whose natural home lies far eastward in Arkansas and southern

Colorado. It has been found nowhere else in California. How its seeds first got here is anybody's guess.

On these dunes grows in low broad mats an extraordinarily beautiful and rare *Croton* with leaves, not the usual gray-green, but a rich copperas-green, a color I have seen in no other desert plant. The most common grass is a perennial Dropseed (*Sporobolus*) with long and vigorous creeping underground stems, from which spring stout stalks covered with broad green blades which gracefully sway in every breeze. Here, too, grows a sand-binding bunch grass sometimes called Indian Rice. Both grass species have rather large plump seeds which formerly were utilized by the local Indians. These grasses are usually most plentiful in the low bowl-shaped "blowouts" where more favorable moisture conditions prevail.

The largest of all the dune-dwelling plants is a *Dicoria*, sometimes called the Bugseed-bush because of its pairs of flat-bodied bug-shaped seeds. (*Dicoria* in the Greek means "two bed-bugs.") It forms numerous large green domes. When in seed it furnishes much food for the many mice and kangaroo rats. Their myriad foot prints found everywhere under and

about the twiggy seed-bearing branchlets attest to the fondness of these rodents for this nutritious food.

It is about an hour and a half's stiff climb to the highest part of the dunes. Where the slopes are steep it is a case of two steps forward and one lost. One proceeds, not steadily, but by going up and down over an ascending series of large conical hillocks and minor ridges. The last knife-like ridge is exceedingly steep so that climbing is both very laborious and breath-taking. But how rewarding the view!

Far to the north lie broad tree-yucca-covered domes and ridges and a most remarkable "nest" of black symmetrically formed cinder cones, 22 of them all huddled together in a small area; to the east and northeast one sees the majestic bold escarpment of the dark colored Providence Mountains, the Ivanpahs, Clark Mountains, pinyon-clad on their higher slopes; far to the west lies dazzling-white Soda Lake and beyond, barren rocky mountain ridges of forbidding form running north and southward, especially beautiful at eventide when the last rays of the setting sun bring new splendor and momentary loveliness to this silent land. The only possible sight of things man-made may be a far distant train

slowly creeping like a giant caterpillar across the desert wastes.

To appreciate and know the Kelso Dunes it is well to visit them in all seasons, in many kinds of weather and at different times of day. Late October and November's calm weather is perhaps most pleasant. On rare occasions when it rains the erstwhile brilliant

sands take on a light leaden-blue color, still somewhat suffused with orange. It is a somber scene but still very appealing. A night spent beside or on the dunes, especially a moonlit one, is a long-remembered experience. Even a windy day has its advantages. As blowing sands sweep in tenuous sheets up the slopes and outward over the

ridges, they fairly sing. It gives one a strange feeling very like that of wandering in a blizzard. Perhaps most beautiful of all are those days in late winter and early spring when great white cottony clouds pass across the azure sky casting fleecy shadows interspersed with patches of brilliant sun-splashed sands.

LIFE ON THE DESERT

By ELLA BRISON JOY

"WHY TAKE a woman? We will have trouble enough," one of the miners grumbled. Later he was to be thankful that I had decided to join my husband on the trip.

We had spent the winter at Ord Mountain at the Hassen Mine. Now my husband Walter was to go to Goler Canyon in the Panamint Mountains of California to superintend the assessment work there as well as some assaying and exploration. We outfitted at Daggett, California.

Frank Brown was general manager of the company. Besides Frank and Walter, there were four miners, one mucker—he shovels out the waste—and a cook in the group. A four-horse team and large freight wagon and a buckboard drawn by two mules, Maude and Jack, completed the outfit.

We had decided that I would remain in Daggett with our five-year-old son, Walter, Jr. But when I saw the men getting ready to start, I could not resist going too. Mr. Brown and Walter consented, and little Walt and I joined the party.

I was not a newcomer to camping. I had baked hundreds of sour dough biscuits in a Dutch oven with cow chips for fuel; had driven a wagon at night looking for water until the moon went down, then unrolled a blanket bed in the middle of the road for a few hours' sleep before getting up to fetch water for breakfast. I had traveled a month at a time to reach some remote mine, then packed everything by horseback over mountain sheep trails to camp. I was no tenderfoot.

The cook in our outfit had hired out "for a change" after working at the Hotel Green in Pasadena. The first morning he packed the lunches, we had soft boiled eggs, cold. Next morning I suggested that lunch might taste better if he cooked the eggs longer. All he answered was, "I didn't know." Every day of the trip we had mulligan.

After several days' travel, we arrived at Goler Canyon. A narrow, winding trail led to the top of the mountain where a stone cabin squatted next to the mine adit. The cabin had

neither roof nor floor, so the child and I camped down by the spring while the men stayed in the cabin. Frank and Walter went up to the mine each morning and came down for dinner at night.

I fixed up a kitchen and dining room and two bedrooms from the natural shelter made by a large boulder which had rolled down the mountain and lodged against another huge rock. It was a lonesome place for little Walt and me, with nothing to do all day except cook dinner for the two men when they came down after work. We were in a canyon and could not even see out over the desert.

The cook was still giving the men mulligan three times a day—a can of corned beef, a can each of corn, tomatoes and peas, potatoes and onions—and the men were ready to strike. This was averted when the mucker got sick, and Frank was unable to go to Ballarat for a man to take his place. I said I would do the cooking if the cook would do the mucking, and so it was arranged to everyone's satisfaction.

We moved up to join the others on the mountain, sleeping in a tent on the same level with the kitchen. The tunnel was below, and the men had their sleeping quarters there. The one-room cabin, a small sheet iron stove with four holes, a table and boxes for chairs was home. We used tin dishes and for fuel just a bunch of sage brush which Frank would bring up on the back of one mule every morning. The other mule carried two five-gallon cans of water. That was all I had for cooking three meals a day and lunches for the men who worked at night.

I baked pie every day and made light bread when it was not too hot. There is a certain time in the desert in summer when it is impossible to make yeast bread. The heat kills the yeast. But I did not learn that until after I had spoiled a batch or two. Then baking powder biscuits were substituted three times a day.

On the days Frank went to Ballarat for the mail I could not cook beans, dried fruit or make bread because he

At first the miners grumbled at having the superintendent's wife in camp. But they changed their tune after the mulligan-every-meal cook had to pinch-hit as mucker and "that woman" started baking pies.

could not come up with a load of water on that day. My daily bath and the child's consisted of one tomato can of water. Today, every time I let water go down the sink I remember those years of never having enough and think what I could have done then with the water I now waste.

To make the fuel last, I would stand over the stove and put in just one piece of sage brush at a time, to keep the kettles boiling.

One day Frank said, "I am going to Los Angeles and have hired a man who has a mine across the hill to bring water and wood up the mountain on his burros. He will bring all you want if you will give him all the pie he can eat."

The next day he came with five animals—two five-gallon cans of water on three burros, and two piled high with sage brush. Here was luxury! What a wash day I had, and a real bath! The old mountain had never before been decorated with such a line of laundry flying gaily in the breeze. As for my end of the bargain, I doubt that the man who brought the water ever had so much pie.

I expected Frank Brown to bring my daughter when he returned. She was in Las Vegas and was to meet him in Daggett.

About the time they were due, I walked out to the point. Away, far below, the road curled through the canyon. And there was Frank, the mules and buckboard looking like black ants in the distance. I scrambled down to camp for a bed sheet—the only thing large enough to stand a chance of being seen—and waved it in welcome. Soon we would bid good-bye to our camp here and travel that same road back to civilization.

Later that night, after everyone was in bed, I again went out on the point to see if all the stars were in place and the full moon shining as brightly as it should. I looked across the valley to the Funerals. Our existence certainly lacked comfort—not even enough water to take a decent bath—but that night I felt richer than all the millionaires in the world.



Pegleg Smith was a trapper who stumbled onto a rich field of black gold nuggets. He never was able to relocate the site, nor has any man since been able to discover again the fabulous mine he lost. Sculpture by Cyria Allen Henderson.

Search for the Lost Pegleg Mine--1884

Tom Cover was a systematic prospector. Determined to find Pegleg Smith's lost mine, he collected all the Pegleg stories, rumors, hints—every scrap of information or hearsay he could—and, evaluating them, drew up a list of clues to guide his search. Some of his conclusions were printed in a Riverside, California, newspaper in 1884, soon after Cover's disappearance on his final trek into Pegleg country—the Borrego Badlands of the Colorado Desert. Henry W. Splitter recently discovered these newspaper accounts and incorporates them into this story of Tom Cover's persistent but fruitless search.

By HENRY WINFIELD SPLITTER

IN 1884, Tom Cover, a prominent citizen of Riverside, California, went to the Colorado Desert in search of the Lost Pegleg Mine. He never returned.

In itself, this isn't an unusual tale. Many men, lured by visions of vast wealth, have sought Pegleg Smith's black gold nuggets, and many have lost their lives in the search. But Thomas Cover wasn't an ordinary prospector.

Cover had come to Los Angeles in 1867 from Alder Gulch, Montana, where he had been one of the first discoverers of gold in that state. With a fortune of \$75,000, he traveled west, finally settling in Riverside where he remained the rest of his life. He is reputed to have been one of the first settlers in that community and to have helped introduce the Washington or Riverside navel orange to citrus ranchers there.

The role of city founder and orange rancher did not entirely satisfy Cover. Indeed, he often declared that the main reason he had come to Southern California was to find the Lost Pegleg Mine. For 17 years he carried on this quest, and at the time of his disappearance was the Southland's dean of lost mine prospectors.

During this entire period Cover had been collecting all available Pegleg stories, rumors and hints to help guide his search. Some of these were printed in a Riverside paper in 1884 subsequent to his disappearance. Eventually forgotten, they have only recently again come to light. Recorded here is Cover's story of the original finding of the mine enroute from Yuma to Los Angeles.

"On the evening of the third day out from the Colorado," he relates, "they (Pegleg Smith and his companions) had camped, when one of their number climbed a little hill or butte 50 feet high. He found the hill covered with loose pieces of black rock, intermingled with grains of yellow metal. The men of the party were trappers, not miners, and knew nothing about ores. It did not dawn upon them that they had found a deposit of precious metal, but they supposed it to be copper or something of the sort. Nevertheless, their curiosity was sufficiently piqued to induce them to gather a number of the specimens to carry away with them.

Drawing of the three buttes accompanied a story of the Lost Pegleg Mine which appeared in the San Francisco Examiner, February 21, 1892. Another source claims the sketch was made from memory by the miner cared for by Dr. De Courcy. The three black buttes comprise the main landmark to the lost Pegleg gold.

A mountain of black quartz reeking with yellow gold, it holds more millions than were ever fancied in the fabled romance of Monte Cristo. That it exists no Californian miner holds a doubt; but though many have dared the tortures of death by drought, and many have paid the penalty of death in the hunt for its incalculable treasures, no man

had immediately recognized as the lost Pegleg mine.

The excitement, however, was too much for the miner. It brought about a relapse of his fever; he died, and again the Pegleg was an unsolved mystery.

De Courcy would intrust the secret of his luck to no white man, but hired Indians to seek the three golden hills. They never



THE THREE GOLDEN HILLS OF THE LOST "PEGLEG."

[From a rough sketch supposed to have been made by the second discoverer of the mine.]

has as yet succeeded in finding the Pegleg and survived to profit by its naked millions of gold.

This morning at 9 o'clock two men will leave this city to seek the lost mine; and with money and pluck at their back they hope in time to discover it. They are Thomas Doran and J. K. ("Jack") Bell; both of them San Franciscans, both of them prospectors, inured to the vicissitudes

found it, or at least they never revealed the secret of their discovery to the doctor, and he died without ever making more than that first \$2,000 out of the miner's discovery of the Pegleg.

Another decade rolled by—nay, more; a decade and a half. One after another prospectors started out to seek the lost mine; but no man ever came back to tell that he had found it.

"The next day they resumed their journey across the desert. The first settlement on this side which they reached was Temecula, a Catholic Indian Mission. One of the mountains of the San Jacinto group near Temecula still bears the name of Smith's Mountain as a souvenir of the journey. Besides Pegleg, the only other member of the party whose name has been preserved by tradition is one Yount. It is said that a descendant of Yount's still remains, in the person of a grandson residing at Rincon.

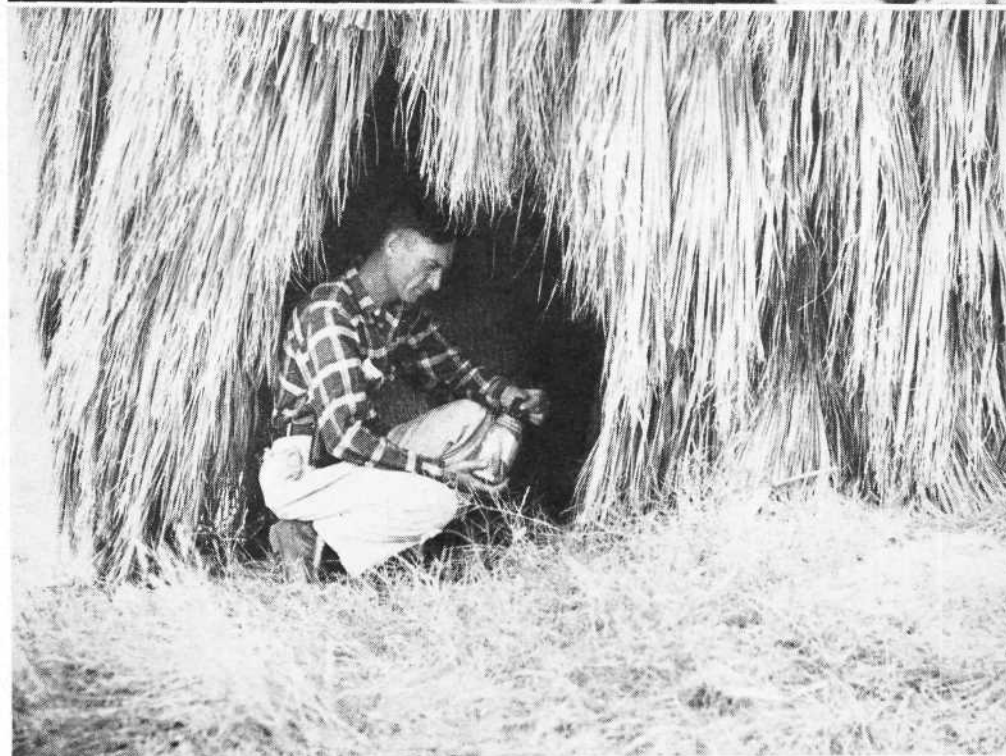
"Smith and Yount remained in California for many years, preserving the curious specimens which they had brought with them from the desert. When gold was discovered in California in 1848, their interest in these specimens was renewed, and they caused them to be examined by expert mineralogists. This investigation proved that the specimens were charged with free gold."

The date for Pegleg's discovery is declared by Cover to be 1836, the usually accepted one being 1829. According to another source, Pegleg himself is said to have told a friend at San Francisco in 1854 that the date was 1832.

The question has often been asked: why didn't Pegleg revisit the fabulous spot before 1850? If, as is generally stated, he had his specimens analyzed upon his arrival at Los Angeles and found them to be gold, the delay seems strange indeed. Cover's version offers a logical answer: Pegleg had had no assay made until Gold Rush days, and until then he believed the metal was merely copper. This explanation is corroborated by an extensive article in the *San Francisco Examiner* of February 21, 1892.

In 1850, Pegleg organized an unsuccessful expedition in search of his mine. Others believe that he made a second try in 1855, and still another in 1856. According to a Phoenix attorney who stated his opinion in 1893, the 1855 search was conducted not in the Colorado Desert at all, but in Arizona, on or near the Bill Williams fork of the Colorado River.

Pegleg died in the middle 1860s. Meantime, a second Pegleg Smith had come on the scene, an ex-soldier who worked for years as an emigrant guide from Yuma to Los Angeles. Oddly enough, he also found gold in the desert, possibly the original Pegleg mine, and when in the middle '70s he went out to his secret mine and never returned, all knowledge of his find, too, was lost. Stories about the first Pegleg have sometimes been attributed to his later namesake, and vice versa, creating a most tantalizing comedy of errors for the lost mine investigator. In



Above—Seventeen Palms Oasis in the Borrego Badlands of the Colorado Desert. Most of the searching for the Lost Pegleg Mine has centered around this spot.

Below—Arles Adams examines records cached in the dark recess formed by the dead fronds of one of the palm trees in Seventeen Palms Oasis. Water and food is often cached by prospectors in these natural cupboards.

general, stories of a prospector who was rescued half-crazed from thirst and heat in the desert probably tell the adventures of Pegleg II.

Vitally interesting is Cover's story about Dr. De Courcy of Los Angeles and how he came to devote much of his later life to a search for the Pegleg mine.

"About 1869 a miner, who had previously crossed the desert from California to Arizona, concluded to return, and he set out on a saddle mule for his perilous journey. Going out, he had followed the Butterfield stage route, by way of Warner's Ranch and Carrizo Creek. Returning, he could shorten the distance somewhat by de-

flecting to the northward and coming out through San Geronimo Pass. Being unacquainted with this route, he went too far south and entered the 'badlands.' After infinite hardships he finally got through, but instead of finding his exit by way of San Geronimo, he came out by Carrizo Creek canyon, reaching Temecula as the first settlement.

"On the second day out from the Colorado side of the desert, the miner found himself utterly bewildered, and he rode to the top of a little butte nearby to take his bearings. While there he chanced to look down and was astounded to find the hill literally covered with broken quartz and parti-

cles of free gold. He described the place as not a defined ledge, but what is known in miners' parlance as a 'bust-up'. He lost little time in dismounting, and emptying his saddlebags of surplus clothing and everything that could be dispensed with, filled them in turn with rich ore and loose mineral, which he was able to gather from the ground.

"Resuming the journey, he found his way out of the desert as described, and in due course of travel arrived at Los Angeles. Here, as a result of hardships endured, he fell sick. Dr. De Courcy was called and attended him through a long and serious prostration. As the man was finally convalescing, he opened his heart to the doctor, telling the story of his discovery on the desert and producing the saddlebags in proof thereof.

"The contents of the bags Dr. De Courcy estimated to be worth at least \$7,000. From this store he was given

as his fee for medical attendance \$2,000 worth of the precious metal. In response to a protest from the doctor that he was being paid better than he deserved, the miner said in an off-hand way that it didn't amount to anything; he would soon be where he could get plenty more.

"As soon as the man was strong enough to be about, he and Dr. De Courcy, with one other whom they took into the scheme, set about organizing an expedition of the mine. They purchased a wagon and a team of mules, with the necessary outfit, but just as they were about to start, the man succumbed to the excitement, suffered a relapse and died. The expedition was then out of the question, as it involved too many hardships and uncertainties to be undertaken by novices.

"But Dr. De Courcy never gave up his hopes of some day finding the treasure. Eight years ago (in 1876),

in order to gain more information about the country and to further the search if possible, he left Los Angeles and took up his residence in Yuma.

"His method of prosecuting the search is said to be by Indians, two or more of whom he has constantly in his employ. At all seasons of the year when it is practicable, he keeps these men out prospecting the desert, endeavoring again to trace the footsteps of the lost patient. Evidently the doctor is impressed with the perils involved in the search, no less than he is with the reality of the ledge itself, and he wisely refrains from offering himself as another victim to its glittering attractions.

"It was from Dr. De Courcy that the unfortunate Cover obtained much information regarding the probable whereabouts of the mine, as well as this part of its traditional history. For this purpose Cover paid a visit to Yuma last winter. The Doctor gave him, beside the information, a specimen of the black quartz and free gold, which he had originally received as a part of his medical fee from the miner, and had treasured for 15 years. This specimen was Cover's madstone, but it aggravated his malady rather than cured it. He carried it with him until it lured him to his fate."

The De Courcy story, substantially as above, is retold in the *San Francisco Examiner*, February 21, 1892. Here there is a variant detail referring to the route taken.

"The miner left Yuma for Los Angeles, and in crossing the Colorado desert took a short cut through an old 'draw,' or river bed, by whose tortuous twistings and windings he was shortly hopelessly bewildered," reported the *Examiner*. "Despairing of ever finding a trail in the draw, he got out on the plain and noticed three hills clustered together in the distance. He struck out for them in hopes of being able to take his bearings. When he reached the biggest one, all else was forgotten in the naked millions that blazed upon his tutored eye from the black spar with which he was surrounded. He packed his saddlebags with samples and finally managed to get to Los Angeles."

The story of the finding by a Yaqui Indian of a rich gold deposit in the desert southeast of Warner's Ranch is told by Cover as in Philip Bailey's *Golden Mirages*. Cover and Bailey also tell substantially the same tale about an Irishman who made a rich find in that same area, back in 1860, but Cover has the Irishman show up, immensely rich, in San Francisco, not in San Diego.

TRUE OR FALSE

give the newcomers on the desert a bit of encouragement. But the questions involve a wide range of subjects — history, geography, Indians, botany, mineralogy, and the general lore of the desert country. A score of 12 to 14 is fair, 15 to 17 is good, 18 or over is excellent. The answers are on page 41.

This month's Desert Quiz is one of the easiest that has been offered for many months—just to

- 1—The bite of a tarantula is deadly. True _____. False _____.
- 2—The Pecos River of Texas and New Mexico is a tributary of the Colorado. True _____. False _____.
- 3—The Saguaro is the largest cactus native of the United States. True _____. False _____.
- 4—There are no active volcanoes in Arizona, New Mexico, Utah or Nevada. True _____. False _____.
- 5—Highest mountains visible from Flagstaff, Arizona, are the San Francisco peaks. True _____. False _____.
- 6—Salton Sea is larger than the Great Salt Lake. True _____. False _____.
- 7—Indians who live on the shore of Pyramid Lake in Nevada are the Chemehuevis. True _____. False _____.
- 8—The Funeral Range is visible from Tombstone, Arizona. True _____. False _____.
- 9—Because of the similarity, the Mexicans can understand much of the Navajo language. True _____. False _____.
- 10—Wickenburg, Arizona, is on the bank of the Hassayampa River. True _____. False _____.
- 11—Coronado came to New Mexico seeking the fabulous Seven Cities of Cibola. True _____. False _____.
- 12—Weaver's Needle is a prominent landmark in the Superstition Mountains of Arizona. True _____. False _____.
- 13—Mature seeds of the native palm tree found in Southern California are black. True _____. False _____.
- 14—The coyote is a vegetarian. True _____. False _____.
- 15—All the various Apache Indian tribes are now concentrated on one reservation in the White Mountains of Arizona. True _____. False _____.
- 16—Roosevelt Dam is in the Salt River of Arizona. True _____. False _____.
- 17—Blossom of the Ocotillo is yellow. True _____. False _____.
- 18—Chrysocolla is one of the copper ores. True _____. False _____.
- 19—Shivwits Indian reservation is in Utah. True _____. False _____.
- 20—South Rim of the Grand Canyon is higher than the North Rim. True _____. False _____.

Finally, there is the story of the squaw and the three hills. "Five years ago (1879), while out on one of his desert expeditions, Cover stopped at Flowing Wells, a station of the Southern Pacific railroad. The station-keeper told him that, a few days before, a squaw had come there in a famished condition and utterly worn out with travel. After she had somewhat refreshed herself with food and rest, she showed them several hundred dollars' worth of gold nuggets, which she carried in a small bag. They asked her where she got it, and she pointed in a southerly direction and said on some little *pachapas*, holding up three fingers to designate the number.

"Her story was to the effect that she and a companion were trying to go from Warner's Ranch to an Indian village on the north of the mountains. While on their way along the border of the desert they ran out of water. The buck lay down under a bush and told her to go and hunt for some. She spent considerable time in the search, and finally succeeded in finding a hidden spring, but when she returned to the place where she had left her companion, he was gone. Frightened at the situation in which she was left, she began to search for the Indian, and climbed to the top of a hill to look about. There she found the gold, but she was in too much fear to gather much of it. She traveled all of that day and part of the night, when she saw a light. She arrived at the station early in the morning. As soon as she was able to travel, the squaw left the station.

"It seems that the agent did not place sufficient confidence in her story to try to trace her course back into the desert, or his duties at the station, or some other cause, prevented him from doing so."

This Cover material, collected as it was prior to 1884, deserves special credence as reflecting perhaps more exactly events as they occurred than do versions obtained a half century later. The stories probably represent the original version from which later variants were derived.

Tom Cover was not content simply to know and record these narratives. He also drew certain practical deductions from them. He came to the following conclusions:

"A little reflection will show that the several stories above recounted point to substantially the same locality and describe presumably the same spot. Pegleg Smith and his party traveled three days in a northwesterly direction from the mouth of the Gila before they found it. The distance was probably about 90 miles. They then traveled

Desert Birds

How to attract them
to your home

Prize Contest Announcement

What experience have you had with desert birds? Have you found a way to attract them to your home for food or water? Or for nesting?

Actually the desert country is the homeland for many species of birds. Some of them are wildings of canyons, others make their homes in the cactus. Some prefer the mountains and others the desert low lands. The naturalists in Death Valley Monument, which includes the mountain ranges as well as the floor of the valley, have a check list of 233 species and sub-species of birds seen in that area. Some of them are migrants, others are occasional visitors, but scores of them spend all or a considerable part of the year within the Monument. Some of the species prefer the desert wilderness—others build their nests in the farmlands and towns. Some, like the roadrunner, appear to be equally at home in the cultivated districts and in the arid back country.

If you are interested in the birdlife of the desert, and have been successful in attracting them to your home by providing feed or water or nesting facilities, *Desert Magazine* would like to have you write about your experiences for the benefit of other desert people.

This is a prize contest with a \$25.00 award to the first and a \$15 award to the second place winner. In addition to the awards for manuscripts of from 1200 to 1500 words, \$5.00 will be paid for each acceptable picture sent with your story.

Entrants in this contest may reside anywhere, but the stories must be based on experience with birds in the desert area—the states of Arizona, New Mexico, Nevada, Utah or the desert sector of California. Also, stories must be about the wild birds of the desert region—not about imported or captive birds.

The contest will close May 20. Entries should be typewritten, double-spaced, on one side of the paper and pictures should be 5x7 or larger in black and white, well wrapped for protection in the mails. Winning stories will be published in *Desert Magazine*. Unsuccessful manuscripts and pictures will be returned if return postage is enclosed.

Address entries to Bird Contest Editor, *Desert Magazine*, Palm Desert, California.

one day (30 miles) to reach this side of the desert. The Yaqui left his hidden spring at the foot of Smith's Mountain (this side of the desert) at day-break and traveled easterly until about three in the afternoon. In that time he might have gone 30 miles. The Indian squaw and her man, starting from the same place as the Yaqui (Warner's Ranch) might easily have followed the same course and arrived by chance at the same hills. The miner returning from Arizona was only two days on the desert when he found the gold, but he traveled alone, with a mule and lightly equipped. He might have made 90 miles in two days. All of the stories concur as to finding the precious metal on top of a hill or *pachapa*. The hidden spring is referred to by two of the Indian traditions."

Tom Cover made five separate trips in as many years in search of the Pegleg mine. In addition, he fitted out another expedition at his own expense,

being composed of Hank Brown and O. D. Gass, who spent the greater part of the summer of 1883 in prospecting the desert. Generally it was believed that the Borrego badlands, being of secondary formation, could not contain gold. Cover's first expedition, therefore, explored the region north-east of the railroad. He then heard of the squaw's story and decided the gold must be south of the road. In the second expedition an effort was made to skirt the desert to the west, penetrating between the badland hills and the mountains. In Cover's third venture the badlands were left to the east and north and a passage was tried between them and the mountains, coming south. In neither of these expeditions did Cover get through. The fourth trip went by way of San Felipe canyon, but had to be abandoned before completion. The fifth and last expedition led to Cover's disappearance and presumed death.

MINES and MINING

Phoenix, Arizona . . .

The U. S. Geological Survey has announced that a new vanadium mineral previously unknown to science has been found at the Monument No. 2 mine in northeastern Arizona. Officials said the new mineral has been named "Navajoite" in honor of the Navajo Indians on whose reservation the mine is located. The mineral was described as a "dark brown fibrous mineral composed of hydrated vanadium oxide. Although it has a high vanadium content it is not considered a good vanadium ore mineral because it does not occur in large enough quantity." — *Phoenix Gazette*.

Adelanto, California . . .

Two 75-ton capacity tungsten mills will be in operation by early 1954 in El Mirage Valley, ten miles west of here, according to Jonathon Walker of the W. F. Mining Company. One of the mills will be a wet mill and is now under construction on the Adelanto-El Mirage highway. The other mill, of radically new design, will be installed and operated by the Osborne Testing Laboratories of Los Angeles. Expected to be in operation by January, 1955, the mill will separate tungsten ore supersonically, that is, by high frequency sound waves. Open pit mining operations in the valley are producing $\frac{1}{2}$ to 1 percent tungsten ore. — *California Mining Journal*.

Pioche, Nevada . . .

New activity is reported at the old Atlanta mines, located 51 miles northeast of Pioche in the northern sector of Lincoln County. Idle for nearly 20 years, the mines were leased recently by E. E. Collins, R. A. Hardy and S. U. Guthrie. Open pit mining started last August, and by October ore was being hauled to the McGill smelter for sampling. A considerable portion of the gold is combined with tellurium. An analysis also shows the ore contains a sufficient quantity of uranium to make a valuable by-product. — *Battle Mountain Scout*.

Moab, Utah . . .

A rich uranium discovery in Mineral Canyon has been announced by Gail and William Tibbetts and Marlene Law. The channel outcrop appearing in two places shows a 12-foot face assaying .5 to 3.0 percent uranium and 5 to 10 percent vanadium. Road work is under way, and mining operations have begun. — *Mining Record*.

Fallon, Nevada . . .

Mining ore from perlite deposits 18 miles south of Fallon is to begin soon, according to A. E. Hepburn, president of Nevada Perlite Company. Shipments of mine-run materials will follow. Present plans are to ship 500 tons or more daily until a processing plant being built three miles west of Fallon is completed. — *Fallon Standard*.

Santa Rita, New Mexico . . .

This desert town, perched atop a rock "island" in the middle of an open pit copper mine, is being moved to allow mining expansion. New methods of recovering copper from low grade ore, which was once considered worthless, have made the Santa Rita site valuable. So 37 families and their homes are being shifted a mile and a half to the northwest, opening the former townsite to blasting powder and shovels. Cost of the migration, an estimated \$1.5 million, is being borne by Kennecott Copper Corporation, owner of the mine and the town. — *Mining Record*.

Carlsbad, New Mexico . . .

Last step in an expansion program of the potash division of International Minerals and Chemical Corporation at Carlsbad was completed in March when new installations in the sulphate section of the chemical plant were tied into the circuits. The expansion work amounted to approximately \$6,000,000, and the new equipment increases production capacity for sulphate of potash by about 50 percent. — *Eddy County News*.

Beowawe, Nevada . . .

The old mining camp of Cortez, south of Beowawe on the Eureka-Lander county line, is showing signs of life. Recovery work has begun on 80,000 tons of tailings which were left on the dumps when the mines ceased operations about 25 years ago. The tailings are being shipped to the International Smelter plant at Tooele, Utah. It is understood that the smelter will get the tailings from the old mill just above Cortez and will use them as flux. These tailings came out of the old Cortez chlorinating mill in 1870 with 21 ounces of silver in them. In 1915 they were run through an efficient cyanide plant which left five ounces in the re-tailings. The Cortez district was discovered by prospectors from Austin in 1863. — *Humboldt Star*.

Tonopah, Nevada . . .

Diamond drilling operations at the Summit King mine just north of Tonopah have gone as far as is considered practical, and the next step is to begin stoping and shipping ore. It is hoped that actual mining operations will disclose an extension of the ore body beyond the limits indicated by diamond drilling. Officials of the company admitted that the ore body discovered in August, 1952, does not appear to be as large as was first believed, and that the property may be closed down "temporarily" after removal of the known vein matter is accomplished "unless additional ore is discovered." — *Tonopah Times-Bonanza*.

Salt Lake City, Utah . . .

If the present rate of development continues, Utah and western Colorado might become the biggest uranium producers in the world, believes Dr. F. W. Christensen of the College of Mines at University of Utah. "The Big Indian district in San Juan County, Utah, already is one of the largest uranium ore areas on the North American continent," he pointed out, "with reserves of uranium ore proved by drilling, development and exploration over an area 10 miles long and two miles wide." He added that there were "very obvious" possibilities of finding other ore deposits similar to that encountered in the Big Indian district. — *Salt Lake Tribune*.

Goldfield, Nevada . . .

Louis H. Smith has leased his manganese property seven miles southwest of Goldfield on the old Lida road. The lessees have already moved in some heavy equipment, and they plan to install a washing plant. Assays as high as 48 percent, about \$105 a ton, have been returned from samples, and evidence of uranium has been found on the claims, Kiester Smith, one of the lessees, reports. The lease embraces a group of four claims known as the Joan of Arc 1, 2, 3 and 4. — *Goldfield News*.

Blythe, California . . .

The Blackjack Mine, principal producer in the Arlington group of claims at the northeast end of the McCoy Mountains, 25 miles northwest of Blythe, is currently producing manganese ore for the Wenden stockpile. Production is made from two drifts, about 50 feet apart vertically, which run along the course of the vein. The upper drift extends over 300 feet. An irregular ore body has been stoped to the surface over a vertical distance as great as 50 feet. — *Mineral Information Service*.

LETTERS

Jade Flecked with Gold . . .

Whittier, California

Desert:

One Spring morning several years ago I walked the road on the west bank of the Colorado River between the ghost town of Crossroads and Parker Dam. There are to be seen along this road many drifts of sand and coarse gravel, a product of the river in ages long past. Some of these piles have been cut open by the road builders.

Always seeking specimens, I examined some of these banks. At the foot of one, I picked up a water-worn pebble of slick, dark green, 2½ inches long, 1½ inches wide and pear-shaped. In one side was a flake of gold, perhaps worth one dollar, and near it two smaller flakes, together worth 50 cents. I carried it with me, more interested in the rock than the gold it contained. What was it? Could it be jade?

I laid it on my table at the camp dormitory and often contemplated it. The story got around camp that I had a gold specimen in my room and one day a nondescript character took it to the blacksmith's shop, laid it on the anvil, and pounded it with an eight-pound hammer "to get the gold out," as he said. When I recovered it, it had been pulverized beyond interest.

Not long after this affair, an old prospector dropped into my room one evening, and we talked rocks, mines and desert travel for some time. During the conversation I asked him if he in his prospecting had ever found jade. He said he had seen white jade in San Diego County and black jade in Nevada. I related the preceding story to him, adding that since that incident I had made a trip to Los Angeles and, there having seen specimens of Wyoming jade, was convinced that what I had was actually jade. But I had never heard of jade containing gold.

He said my account was highly credible, and that back in the eighties a prospector in Mojave County, not far from the east side of the Colorado River, picked up a piece of float that was unmistakably jade flecked with gold. It was a specimen of extraordinary beauty which passed through the hands of several owners and at length came to rest in the private collection of the curator of the Museum of Geology in the Ferry Building, San Francisco.

PAUL J. LINSLEY

Sheep Without Horns . . .

Victoria, Texas

Desert:

Last summer, wallowing over detours throughout New Mexico, I realized an extensive road improvement program was being carried on in the state—but I had no idea that they were planning to move Taos, or the Rio Grande! The last question in the March Desert Quiz says that Taos is on the bank of the Rio Grande. Up to last summer, it was several miles from the river.

And the cut of the pictograph on page 7 has the caption: "The human race was recording the presence of bighorn sheep long before the white men came." But in the picture there are four men mounted on horses. The horses look rather modern, and not at all like the *eohippi*.

But *Desert* for March is a good number. I particularly liked "Uncle Sam Bought a Cactus Garden."

REV. VICTOR R. STONER

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Brings Taos Back Home . . .

Berkeley, California

Desert:

In the Desert Quiz for March, 1954, the 20th question states: "Taos, New Mexico, is on the bank of the Rio Grande"—and the answer is given as "true."

Unless *Desert's* quiz editor considers the bank of a river to be rather more extensive than I do, this is not correct. The Taos and Vicinity quadrangle, surveyed in 1936 and published in 1945 by the U. S. Geological Survey, shows Taos to be about 8 miles from the Rio Grande.

Taos is located between the Rio Taos and the Rio Fernando de Taos. Taos Pueblo straddles the Rio Taos, and Ranchos de Taos is on the Rio Grande de Ranchos. All these rivers are tributaries of the Rio Grande.

MORT D. TURNER

Readers Stoner and Turner are right. Desert's proofreader, who allowed the typographical error to float on by, admits he was "all wet" on March's Question No. 20 and promises to watch his rivers more carefully from now on.—R.H.

• • •

Of Dinosaurs and Man . . .

Montebello, California

Desert:

In the November issue of *Desert* there appears an interesting letter by R. W. Applegate relative to his seeing contiguous footprints of dinosaurs, sloths, birds and man preserved in sandstone in Arizona.

If Mr. Applegate has, as indicated in his letter, actually found footprints

of man contemporary with prints of dinosaur he has made the most astounding discovery known to Paleontology or Archeology! Referring to the find, Mr. A. states: "That's the thrill I'll never forget." I can agree most heartily with that understatement.

However, let's look at the record: The dinosaur became extinct near the close of the Cretaceous Geological Period, some 75 to 100 millions of years ago. At that time no mammals existed, unless it was some small insignificant creature entirely unrecognizable as progenitor of evolved true mammals of the Tertiary Period.

The giant sloth evidently migrated into North America from South America near the beginning of the Pleistocene Period, some 5 million years ago. Man is one of the most recent arrivals upon the scene, perhaps a few hundred thousand years ago.

Many, many millions of years intervened between the last of the dinosaurs and the advent of man.

Now, a footprint preserved in sandstone would of necessity have been made originally in loose sand and shortly covered by sediment before being obliterated by wind, hail, water, etc. The material preserving the print must then be buried deeply to permit the pressure of accumulated material together with the heat generated by that pressure, and perhaps some chemical reaction, to transform the sand into sandstone. Thereafter upheaval must raise the sandstone high and erosion wear away the overburden and expose the preserved footprint.

Can the footprints of dinosaurs, sloth and man be preserved contemporaneously?

Surely I have interpreted Mr. Applegate's letter incorrectly.

J. A. KAY

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Protect the Pines . . .

Datil, New Mexico

Desert:

I was delighted to see in the February issue of *Desert Magazine* (p. 32) a protest against cutting down our pinyon pines for Christmas trees.

In our own district, the forest service last year permitted several thousand pinyon pines to be cut for Christmas trees—for Texas! For wood, for nuts, for shelter, for pitch, to help stop erosion, this tree is one of the most valuable. It is a crime to cut so many thousands of the young trees each year, to be decorated and then thrown out after ten days or so.

Let someone design a synthetic Christmas tree which will still hold sentiment yet will not destroy our young forests.

LORAIN MORLEY REYNOLDS

Hopi Snake Secrets . . .

Paterson, New Jersey

Desert:

In the March issue of *Desert*, I noted the comments on rattlesnakes and the Hopi Indians.

It was my good fortune to be the guest last summer of John Lansa who is a member of the Hopi clan which stages the snake dance for rain. I stayed with him at his home in Old Oraibi for the greater part of my summer vacation. We talked of many things Hopi.

He told me that before the snake dance each participant is given a preparation which he holds in his mouth before and during the dance. If he is bitten, there is no swelling; he is merely sick to his stomach for half an hour or so.

I asked my friend if he knew what the preparation was, knowing full well that I would not find out. He said only the medicine men knew, and that it was a religious secret.

ARTHUR S. DRAKE

• • •

Glendale, California

Desert:

In the comment on Edwin R. Purdie's letter from Hong Kong, China, concerning the three drops of gall as a snake bite treatment, the editors state that the Hopis' real secret of immunization to snake bite is still a mystery.

According to Charles Bogart, herpetologist of the American Museum of Natural History, the Hopis remove both functional fangs and embryo fangs from the rattlers making them permanently and completely safe to handle.

Mr. Bogart attended a recent Hopi snake dance. He watched through a telescope where the snakes were released after the dance. While pretending to look for pottery fragments in the vicinity, he secured one of the reptiles used in the dance, hiding it beneath his hat. He later discovered that one of the African snake cults uses the same technique of rendering poisonous snakes harmless.

Verification of this may be obtained in the new book, *The World of Natural History as Revealed in the American Museum of Natural History* by John Richard Saunders, pages 127-30.

PAUL MURRY

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Babies "On Their Own" . . .

El Monte, California

Desert:

Contrary to the opinion of Wilbur F. Williams, whose letter appeared in the March issue of *Desert Magazine*, rattlesnakes do not swallow their young for protection or any other reason.

All of the pit vipers native to the United States give birth to live young, as do all species of water snakes and some other American species. All of these young snakes are on their own at birth. As there is only one reptile native to the U. S. that shows any maternal instinct whatsoever, there is no need for mother and babies to remain together.

The gastric juices in the stomachs of snakes are so strong that a snake, lizard, bird or rodent swallowed by a snake is completely dissolved. Only hair, scales, feathers and claws are expelled undissolved. This one fact alone would prove that female snakes do not swallow their young.



Charles Ballou Lockwood, who tells "Why Utah Loves the Sea Gull" in this issue of *Desert Magazine*, is practically a native Westerner, coming to Utah at the age of five. He majored in journalism in Utah schools but, upon graduation, turned to music for a career, conducting his own dance band on tour throughout the West and Midwest.

Illness forced his retirement from the band circuit in 1933, and, remembering his early journalistic training, he became a writer. His articles have appeared in numerous magazines and newspapers.

Since a young man, Lockwood has had a keen interest in the desert country and the history of the West, and much of his writing is in this vein. He now resides in Pasadena, California.

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To most people, Ella Brison Joy's Life-on-the-Desert account of her experiences in a mining camp in 1908 is a story of unusual adventure. But to Mrs. Joy, who for 42 years traveled with her husband from mining camp to mining camp, it was a way of life.

"Through Wyoming, Idaho, Nevada, Arizona, Colorado and California we traveled by stage coach, buckboard, mules, horses and on foot," she remembers. "Once we even went down the Salmon River in Idaho on a flat boat. Many of the mines were almost inaccessible, and raising two sons and a daughter in such primitive living conditions was no easy task."

Mrs. Joy was born in Minnesota and lived in Pennsylvania and New York before moving west to Deadwood, South Dakota (then Dakota

I have studied and handled snakes and other reptiles for 45 years and have hunted and caught 17 different species of rattlesnakes in the United States.

BILL ROSS

Anyone Want Rattlesnakes? . . .

Barstow, California

Desert:

Do you know of anyone or any firm which is interested in buying rattlesnakes? I have heard that they are caught and sold to a number of different buyers, like laboratories and zoos.

GILMAN TAYLOR

Does any *Desert* reader know the answer to this one?—R.H.

Territory), by stage coach. She was married in Deadwood and from there began her mining travels.

"I now spend most of my time in Riverside, California," she writes, "with my days of 'roughing it' limited to field trips with the Riverside County Chamber of Mines and frequent trips to my little ranch in Murietta which, because of its lack of modern conveniences, is a constant reminder of my life on the desert."

• • •

Nell Murbarger, ghost town writer, whose story of Unionville, Nevada, appears in this month's *Desert*, won three first awards in the 1954 California competition in journalism and related fields sponsored by the California Association of Press Women. State winners will compete in the finals of the National Association of Press Women.

"Ghost Fortress in New Mexico," Miss Murbarger's story of Fort Union which appeared in *Desert Magazine* in February, 1953, was awarded first place in the historical article classification.

• • •

Recently Harold and Lucile Weight spent a weekend camping in the Whipple Mountains along the Colorado River on the California side and while there gathered the material for a field trip story which will appear in *Desert Magazine* during the summer. They found a big field of colorful jasper—and evidence that prehistoric Indians had used this stone for the making of their arrowheads.

One of the reasons why Harold's stories are always popular with *Desert* readers is that he covers such a wide field of interest. While his field trips are concerned primarily with gems and minerals, he also includes observations of geology, botany and archeology along with generous sidelights on history.

Here and There on the Desert...

ARIZONA

Book of Navajo Secrets . . .

WINDOW ROCK—In an unprecedented action, the Navajo Tribal Council voted to provide the money to publish their most sacred religious secrets. After the longest debate in tribal history, the council voted 50-18 to appropriate \$30,000 for Father Berard Haile, Catholic priest, to publish his monumental work on the sacred and secret "Blessing Way" ceremony. Father Berard declined to say who had outlined the complete ceremony for him, something it is forbidden for any one Navajo to know. "He told me," the priest said, "he would give it to me, not anybody else, because he knew me and trusted me, and he wanted me to write it down for posterity." At the end, one aged councilor told the 80-year-old priest: "You came to Navajoland to make Christians of the Navajos, but the Navajos have made a Navajo out of you."—*Phoenix Gazette*.

Indian Board Named . . .

PHOENIX—The long-planned Arizona Indian Commission became a reality with the appointment of six members in March. Five Indian members were named after nomination by their own tribal groups. They are Sam Ahkeah of the Navajos to a term expiring in 1957; Agnes Savilla, Mojave tribal member, until 1955; Charles McKee, Hualpai, to January, 1955; Enos Francisco, Papago, until 1956, and Sam Thomas of the Pimas, until 1957. Governor Howard Pyle named Dr. Leo Schnurr of Grand Canyon as one non-Indian member; another will be appointed later. Ex-officio members are the governor, superintendent of public instruction, director of public health and the attorney general. The commission is authorized to consider and study cases involving state Indians and to hold hearings and make investigations of Indian matters. —*Yuma Daily Sun*.

Wyatt Earp's Watch . . .

TOMBSTONE—One of the latest additions to the Restoration Committee's growing collection of museum pieces is Wyatt Earp's pocketwatch. The silver watch was donated by Ross' Antique Shop. Fitted with a locket case on the back, it bears the name of W. Earp and dates back to the early 1880s. Ross said he bought the watch some time ago in Bisbee for a few dollars.—*Tombstone Epitaph*.

Twenty Years of Life . . .

WASHINGTON — A government health expert reports that the average life span of America's Navajo Indians is less than 20 years, compared with 68.4 years for the nation's white population. Dr. James R. Shaw, chief of the health branch of the Bureau of Indian Affairs, said that deaths from tuberculosis in 1952 were 9.3 times the rate for white persons; deaths from dysentery ran 13 times higher and from measles, about 29.5 times more — *Phoenix Gazette*.

Okay Rainmaking Program . . .

CASA GRANDE—Agriculturalists who rely on the flow of the Gila River for irrigation water supply have joined in a move to enlarge upon stream flow through a program of precipitation control on the Gila watershed above Coolidge Dam. Interest in the proposed program resulted from the experience of the Salt River Valley Water Users Association. Officials of the association claimed good results were obtained by the use of silver iodide generators located at strategic points on the Salt River watershed. Although many of the Gila Valley farmers expressed skepticism, they were willing to give the rainmaking program a try in view of the short water supply obtained on the Gila in past years.—*Casa Grande Dispatch*.

Indian Bureau Changes . . .

WASHINGTON—Secretary of the Interior Douglas McKay has announced several major personnel shifts in the Bureau of Indian Affairs as part of the administrative reorganization of the bureau recently recommended by a survey team and now under way. Allan G. Harper, area director at Window Rock, is being transferred to Washington as a member of the commissioner's coordinating staff, where his experience in Indians Affairs and knowledge of Navajo administration will be directly available to Commissioner Glenn L. Emmons. W. Wade Head, now area director at Anadarko, Oklahoma, will be the bureau's area director at Gallup, New Mexico, where he will supervise the Navajo Reservation and Indian agencies in New Mexico and Colorado; and G. Warren Spaulding, who has been director of the program division in the Washington Office of the Bureau since 1951, will become superintendent at Window Rock.

Hard Rock Shorty

of Death Valley



"Nope! They ain't no snakes in Death Valley," Hard Rock Shorty was explaining to the Teachers Touring Club. The Club, on a sight-seeing bus trip through the Valley, had stopped at the Inferno store for cold soda.

"Too hot for snakes here," Shorty went on. "They can't take all this sunshine. But they's lots of them up in the Panamints where there's plenty o' shade.

"Usta have a pet rattler here at the store. Pigsaw Bill brought him down from Wildrose Canyon one summer. Bill said snakes were better'n cats fer gittin' rid o' the mice and rats.

"Feller who owned the store that summer didn't like the idea, but he finally agreed to let the snake live under the floor—on one condition. He said if Bill'd tie a bell on that snake's tail so everybody'd know when the rattler wuz movin' around, he'd agree to let Pigsaw keep the snake — providin' of course that it would git rid o' the mice.

"So Bill sent to the mail order company an' got a little bell an' tied it on the rattles.

"Sounded like a good idea, but it didn't work. Rattlesnake soon starved to death."

Hard Rock slowly lit his corn-cob pipe while he waited for the inevitable question.

"Why'd it starve? Well, I'll ask you one: How's a rattlesnake with a bell on its buzzer ever gonna ketch a mouse?"

Arizona Pioneers' Museum . . .

TUCSON—Bids were let in March for construction of the \$250,000 library and museum for the Arizona Pioneers Historical Society. Dr. M. C. Bledsoe, society president, said the building will be located near the University of Arizona and will become headquarters for the society.—*Yuma Daily Sun*.

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CALIFORNIA

Buys Resort Town . . .

JACUMBA — The mountain community of Jacumba has been sold again. The entire town of 300 acres has been purchased by Henry La Zara, a Los Angeles electrical contractor who already has begun an extensive program of improvements. He is the sixth owner of the town within the past ten years. Jacumba is located 70 miles east of San Diego on the highway to Imperial Valley. It is a popular resort in the summer. In addition to hot and cold mineral springs, the town has a hotel, a motel, apartments, 20 stores, 80 cottages and a cafe.—*Yuma Daily Sun*.

Rare Fish Caught . . .

BLYTHER — Raymond Barnes is thinking of giving up fishing and becoming a rockhound. Fishing in the Colorado River below the Blythe Weir, he hooked an odd specimen, 24 inches long, weighing 2½ pounds, with a 4½-inch tail and a hump on its head. Long and skinny, the fish had the iridescence of a minnow. Game Warden George Werden identified the catch as a Bony Tail, a true minnow. It will be sent to Department of Fish and Game laboratories for study by biologists. It is reported that another such specimen was caught in the Colorado River about nine years ago. — *Palo Verde Valley Times*.

RIDGECREST — Mike Lee, friend of the late Burro Schmidt, prospector who dug by hand a tunnel through El Paso Mountain (April Desert), reports Schmidt's old cabin has been destroyed by fire. He said arson was indicated.—*Desert-Mountain News*.

New Bracero Agreement . . .

WASHINGTON — The United States and Mexico have a new agreement on recruitment of Mexican farm workers. It will run until December 31, 1955. The state department said the new agreement clears up what it termed an earlier misunderstanding on wages. The Mexican government had insisted the U. S. secretary of labor fix wages paid Mexican farm

workers, while the U.S. held out for payment at the prevailing rate for that given area. The new document specifies the wages will not be less than those paid domestic laborers "as determined by the United States secretary of labor." Mexico also obtained a provision for compulsory non-occupational as well as the previously-agreed occupational insurance protection to be taken out by American employers for Mexican Workers. — *Phoenix Gazette*.

Narrow Gauge Goes Modern . . .

KEELER — Most of the country's narrow gauge railroads have gone out of business, but not Southern Pacific's little three-foot branch line running from Keeler to Laws. It's going modern with a brand new made-to-order diesel locomotive. An order has been placed for a five-ton, 450 horsepower diesel to be delivered in September to replace the venerable steam locomotives now in operation on the famous old 71-mile slim gauge line. The newer of the two retiring engines, built in 1911, will be retained for emergency use. The Keeler-Laws line was built 73 years ago as part of the 300-mile Carson & Colorado Railroad which extended from Keeler to a connection with the now defunct Virginia & Truckee Railroad at Mound House, Nevada. The Carson & Colorado was acquired by S.P. in 1900 and, as traffic from mining areas dwindled in later

years, one portion of the line after another was abandoned until only the Keeler-Laws unit remained. — *Inyo Independent*.

NEVADA

Paiutes Sue Uncle Sam . . .

WASHINGTON — A \$60,000,000 suit by the Northern Paiute Nation of Nevada and Oregon against the federal government will begin May 12, the Indian Claims Commission announced. The Indian nation, which embraces 6000 Indians in Northern Nevada and Southern Oregon, is suing the government for the alleged wrongful taking of an estimated 50 million acres of land from them a century ago. The Indians are seeking compensation for loss of a vast area extending from Tonopah northward to a point 50 miles north of Burns, Oregon, and from the California border eastward to Battle Mountain.—*Humboldt Star*.

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Uncover Ancient Camp . . .

BOULDER CITY—On a exploration trip to Emery Falls in the eastern section of Lake Mead National Recreation Area, Photographer Bill Belknap, his 10-year-old son, Buzzy, and a friend, Jorgan Visbak, stumbled onto a major archeological find. A cave, half-hidden in a canyon wall, yielded a wealth of Indian relics. Wally Wallace, naturalist at Lake Mead National Recreation Area, accompanied the discoverers on a return trip and shared their enthusiasm. The cave extends almost 60 feet into the canyon wall, and its

ceiling is heavily fire-blackened. There was no evidence that white men had ever visited the site.—*Las Vegas Review-Journal*.

• • •

Mead Run-off Low . . .

BOULDER CITY—Prospects for a heavy run-off into Lake Mead this spring and summer are very dim, according to the Office of River Control of the Bureau of Reclamation. The office is predicting a minimum run-off of 3.9 million acre feet and a maximum of 9.7 million for a mean of 6.8 million. This is compared to a mean of 5.4 million last year and a normal of 8.8 million set up over a period of 31 years. The storage minimum is not expected to be quite as low as in 1952, when the lake level fell to 1132.2, but it is expected to hit 1134.—*Las Vegas Review-Journal*.

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Lake Mead Homesites . . .

BOULDER CITY—A new homesite area on Lake Mead, near Overton, Nevada, will be opened for lease by the National Park Service in the near future, according to George Baggey, chief ranger of Lake Mead National Recreation Area. There are approximately 90 lots which will be made available for lease probably in late April or the first of May. The lease set-up will be the same as that for lots near Davis Dam, on the Arizona side of the lake, which were opened several months ago. Six of the 39 lessees in the Davis Dam tract already have vacation homes under construction.—*Las Vegas Review-Journal*.

• • •

Bighorn Sheep Hunt . . .

PIOCHE—Sixty Nevada residents have a chance to hunt bighorn mountain sheep during the state's 1954 season, April 11 to 25. Three areas in Clark County are open, including, for the first time, a portion of the federal Desert Game Range. Hunters awarded tags are not required to hire a guide this year, nor are they restricted to certain days during the open season. The ten hunters hunting on the federal refuge are under supervision of state and federal personnel, but hunters in the other areas have no direct supervision.—*Pioche Record*.

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Lake Lahontan Healthy . . .

FALLON—With added gains from increased river flows due to heavy March rains, Lahontan Reservoir stood at the strong level of more than 250,000 acre feet. Although the Carson River flow has been below average all winter because of a deficiency in early fall and winter precipitation, Watermaster Harry Richards reports the local water outlook is good.—*Fallon Standard*.

• • •

NEW MEXICO

Drouth, Erosion Bad . . .

ALBUQUERQUE—Of a million and a half acres under cultivation in eight New Mexico counties, 999,529 acres are without adequate cover, the Soil Conservation Service reported at a March meeting of the State Drouth Committee. Almost a million acres are in danger of being blown away. To prevent dust bowl tragedy, the committee promptly asked a \$200,000 disaster allocation from state civil defense funds for emergency tillage, plus an equal sum from the federal government. "A month from now may be too late," the committee reminded in a request that immediate aid be given.—*New Mexican*.

• • •

No Money for Rainmakers . . .

WASHINGTON—The House Appropriations Committee has refused to recommend any money for rainmaking studies. An act of Congress last August authorized the studies, and President Eisenhower subsequently asked \$150,000 to finance an advisory committee to study public and private experiments in weather modification. The appropriations committee gave no explanation of why it turned down the request.—*New Mexican*.

• • •

Protest Fake Indian Art . . .

GALLUP—Ned Hatathli, manager of the Navajo Arts and Crafts Guild, has asked the Navajo Tribal Council to protest to Washington against "cheap Japanese-made imitations of Indian craft work." Hatathli said he has proved the products are being sold in national parks "under the supervision of the government which is trying to make the Indians self-supporting through their arts and crafts industry." Navajos in the Gallup area made \$150,000 last year from beaded Indian belts. Japanese-made belts are now selling for one-fifth the local price, and the competition threatens to wipe out the industry, he said. Other Japanese-made products cutting into the Navajo market are Kachina dolls, a traditional Hopi craft, and bows and arrows.—*New Mexican*.

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LOS ANGELES

Warmer, Heavier Coats . . .

SANTA ROSA — New Mexico sheep continue to grow heavier fleeces, according to the Crop Reporting Board of the U. S. Department of Agriculture Agricultural Marketing Service. Average grease weight of fleeces shown in the state jumped from 8.7 pounds in 1952 to 9.0 pounds in 1953—the greatest increase in grease fleece weight for any state of the western region. In 1953 the average selling price for New Mexico fleeces was 52 cents a pound, an increase of 3 cents per pound over 1952. New Mexico ranked seventh in the United States in number of sheep shorn last year, and cash receipts from the production of wool in the state in 1953 amounted to \$5,901,000. — *Santa Rosa News*.

Toll Taken by Predators

SANTA FE — Furbearer Biologist Frank Sampson agrees that some predatory animals cause enough livestock and poultry damage to warrant curbing their activities, but he cautions that the right ones be caught. Reporting on a study of damages by various predators, Sampson found that 711 coyotes averaged about \$3.02 damage each, but that 20 percent of the coyotes were responsible for the damage. The rest were solid citizens, eating rodents and other legitimate coyote fare. Only five percent of 41 bobcats, causing an average of 38 cents damage, were marauders, he found. Sampson feels that blanket indictment of these animals, because a small percentage cause trouble, is unwise. Trapping for the specific vandal pays best dividends in future security for the farmer and rancher, he said. — *New Mexican*.

May Review San Juan Stand . . .

SANTA FE—New Mexico may decide to take another look at its San Juan River policy, fearing that the state may lose out completely on any prompt federal approval of half a billion dollars' worth of water projects by demanding that the whole plan be considered as a package. There are three major projects being pushed to enable New Mexico to put to use the now-unused San Juan River which crosses northwest New Mexico. They are a combination Shiprock Indian - South San Juan Irrigation Project for Navajos and whites to use about 630,000 acre feet; and the San Juan-Chama Transmountain Diversion Project to take about 235,000 acre feet from the San Juan Valley into the Middle Rio Grande Valley via the Chama River. All three are dependent upon construction of the proposed Navajo Dam. The state's present official position urges feasibility studies on all three

projects at the same time. However, pressure groups may force a revision in the administration's stand. — *New Mexican*.

UTAH

Bridge Work to Start . . .

MOAB — Contract for the bridge across the Colorado River at Moab will be let about June 1, and construction is expected to take about a year. Estimated cost of the project, including three miles of road entering Moab, is \$1,250,000. — *Moab Times-Independent*.

River Project Okayed . . .

WASHINGTON—President Eisenhower in March approved a \$930,-343,000 power and irrigation development for the Upper Colorado River Basin and recommended early Congressional consideration.

The President specifically included the controversial Echo Park Dam on the Colorado-Utah border in his recommendations. Conservation groups had opposed the \$176,400,000 structure on the ground it would flood out portions of Dinosaur National Monument and destroy much of the area's scenic beauty. The President included in the proposed project a \$21,000,000 fund for recreational development of the park, which Secretary of Interior Douglas McKay said "now is inaccessible to all but a small group of people."

In a separate statement, McKay said the Echo Park site was chosen because no other could be found which would provide water storage facilities to meet the region's needs. He said the \$21,000,000 would be used to build roads and facilities to convert this wilderness into "one of the great recreation areas of the nation."

Echo Park is one of two major power and storage dams approved. The other, Glen Canyon, would be built at a cost of \$421,300,000 about 13 miles upstream from Lee's Ferry

on the Colorado River in Arizona. Echo Park would dam a deep gorge of the Green River, a tributary of the Colorado. As part of the whole development, the President also approved conditional fund appropriations for 11 irrigation projects, subject to further consideration by Secretary McKay and Secretary of Agriculture Benson of the "relation of these projects to the wise use and sound development of the basin."

Halogeton Funds Urged . . .

WASHINGTON—Senator Wallace F. Bennett (R., Utah) appealed to Congress for federal funds for the Bureau of Land Management to continue its program of fighting the poisonous weed halogeton. The senator said sheepmen in his state had advised him they fear a further spread of the weed may cut even deeper into their drouth-ridden herds. — *Salt Lake Tribune*.



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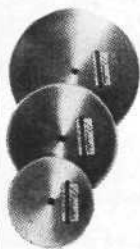
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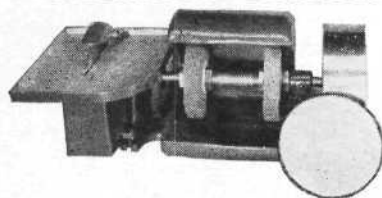


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AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

We saw a woman's suit advertised in this morning's paper at \$295 and while this one did not look too unusual, and we seldom pay any attention to those things anyway, we did read the descriptive material to determine why an ordinary suit, designed for street wear, would cost so much. The only apparent reason we could find was that the suit had agate buttons. So the couturiers have discovered the agate!

Violet Allen, of the Allen Lapidary Equipment Company, went all out on agate accessories for her Easter outfit this year. At the prices quoted above Mrs. Allen's clothes would have commanded thousands of dollars. Her hat is trimmed with agate and of course all buttons on her costume are agate. Her shoe laces are tipped with agate and she has a handbag to match her shoes with purse pulls of agate. Her gloves are trimmed with agates and of course her jewelry accessories are all made of agate. Surprisingly, all of these agates are tastefully arranged on very modestly designed clothes and the effect is not garish at all.

Agate buttons are not new to rockhounds. Any lapidary who has the ability to make matching cabochons can easily make agate buttons with a new gadget called "button backs." These gadgets are flat metal disks containing eyelets for thread. They are glued to the backs of the cabochons and thus buttons are made.

This reminds us that it is indeed easy today to make all manner of jewelry items without being a silversmith, for the market is full of accessories for assembling gemstones into earrings, pendants, tie clasps and many other things. Even if you are not a rockhound and have no machinery you can now buy the "makin's" for some fine jewelry with which to amaze your friends. As an example you can buy some baroque stones (stones polished without being ground; polished in their natural shapes) and some silver caps. These silver caps will fit over any curved surface of the stones and they can be bent to shape and then glued with any one of several good brands of cement now available. Earwires are available too and a set of earrings can be assembled in a few minutes.

As an example of values being offered by some of the dealers we see where one of them will sell an ounce of polished genuine turquoise baroque gem-earwires with loops for dangles, a dozen sterling silver caps or tips for cementing the stones to the silver mountings—enough materials to make six pairs of dangle type turquoise earrings, and all for \$2.95.

Another dealer offers a complete outfit for making a useful and attractive key ring outfit that contains a grooved and

wired baroque gemstone with a chain and jump ring for \$2.00.

While it is true that the assembling of these pieces offers nothing in the way of original creation it is still a way for the hobbyist to make some personal jewelry. The assembling of such pieces will encourage many to attempt some original creations and they may start you off in a new hobby that will bring you great happiness. The names of the dealers offering the above items will be supplied if you send a postage-paid reply envelope.

The annual convention and show of the California Federation of Mineralogical Societies was concluded yesterday at Indio, just 11 miles down the highway from our offices. It was a marvelous, compact quality display of the finest mineral specimens and examples of the lapidary art. But the thing that was outstanding about it was the impression we received that here was a happier group than we have ever seen at a rock show before. Most of the 6000 reported visitors came in rockhound clothes. They came that way because nearly everyone who attended went on a field trip someplace in our neighborhood during one of the three days of the convention. The host Society had provided six Greyhound buses to take the visitors to nearby points and all they had to do was alight from the bus and walk a short distance to plentiful supplies of several kinds of rock.

Probably nothing was more typical than an incident we witnessed as we were leaving toward the end of the afternoon. The buses drew up and one hardy old soul clambered off with two sacks loaded with rocks from the Kaiser iron mines, about 50 miles away. She could hardly lug the load and a male companion offered to help her tote the rocks inside the fairgrounds. He made the remark that he was going right to the lunch counter, for he suddenly remembered that he was very hungry. The old lady suddenly had a look of dismay. Grabbing one of her sacks she dumped it on the ground. Out of the bottom of the sack and atop the pile of specimens there appeared the remains of a paper sack and a pile of crumbs of bread, crackers and cheese. She had been having such a good time she had forgotten about her lunch. She fingered the bits of crackers and cheese, squashed tomatoes, etc., and started to salvage whatever she could. "Be careful or you'll eat some of those rocks" said her companion. "Don't worry about me" she replied, "when I come to a rock I'll know it . . . and besides I need the iron, after that trip." That's rockhounding. As Hubert Dafoe, new Federation President, said to us in our office today "I am sure that no convention anywhere at any time brought as much happiness to its visitors as the Indio show."

Next year the convention goes metropolitan again. It will be held at San Francisco and plans are already under way to make it an International Show. Invitations will shortly be extended to several nations to exhibit some of the best of their country's mineral and gem specimens. This could have far reaching consequences, for the attendant publicity in the countries involved could well start an international rockhounding hobby and people may discover the blessings it has brought to so many thousands of Americans.

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GEMS and MINERALS

CAMEO COLLECTION ONE OF GEM FESTIVAL FEATURES

Pierre Touraine's 200-piece gem cameo collection will be displayed for the first time in the United States at Glendale Lapidary and Gem Society's Gem Festival May 15 and 16 at Glendale Civic Auditorium, 1401 Verdugo Boulevard, Glendale, California. The cameos, most of them Brazilian agate, are beautifully carved to represent scenes from Greek and Roman mythology, ancient and modern history. Some are portraits of famous people of history. A few pieces are carved in gem materials unusual for cameos—like the turquoise Orpheus and green jade Psyche.

Carved jade statues from the collection of Dr. Chang Wen Ti of Los Angeles also will be shown as well as other of Dr. Chang's gem carvings and his 14-piece miniature table set of translucent Burmese jade.

In addition to the special exhibits 50 cases of members' work will be shown, including minerals, fossils, fluorescents, lapidary work and jewelry.

The show will be open free to the public. Hours are from 9 a.m. to 9 p.m. Saturday, to 7 p.m. Sunday.

NEW ROCKOLOGIST CLUB IN MORTON, WASHINGTON

New this year in Morton, Washington, is the Morton Rockologist Club. Publicity Chairman Charlie Reed reports 30 charter members. Officers are Von Sparkman, president; Elmer Rouner, vice-president; Ruby Pigman, secretary-treasurer and Erwin Prentice, field trip chairman. Meetings are held the first and second Wednesday of every month.

ROCKY MOUNTAIN GROUP SLATES JUNE CONVENTION

Eleventh annual convention of the Rocky Mountain Federation of Mineral Societies will be held in Salt Lake City, Utah, June 11 to 13, according to an announcement from Stewart Romney, secretary. Exhibits will be arranged at the Salt Lake County Fair Grounds, 5177 South State Street on U. S. Highway 50-89-91.

WESTERN DAYS, ROCK SHOW DUE IN BRAWLEY

Two field trips are planned during Brawley Rock Club's show April 30 to May 2, weekend of the Western Days celebration in Brawley, California. Exhibits of rock specimens will be display in Plaza Park. Free camping will be available for visitors.

HOW TO HAVE FUN WITH ROCKS GEMS AND MINERALS

since 1937—the rockhound's OWN magazine—featuring mapped field trips, gem cutting helps, silverwork and designs, mineral collecting helps and articles, many supplier ads, and all manner of material that will help you have more fun with rocks. Owned by over 75 organized clubs, the California Federation of Mineralogical Societies, GEMS AND MINERALS is written and edited for practicing gem cutters and rock collectors. It is the ONLY monthly magazine in the field publishing 12 full issues a year. Over 9,000 rock hobbyists already use and enjoy GEMS AND MINERALS, so will you. Send only \$3.00 for 12 monthly issues. Subscribe today.

GEMS AND MINERALS

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Palmdale, California

FIFTH ANNUAL SHOW FOR TOURMALINE SOCIETY

Tourmaline Gem and Mineral Society of San Diego County, California, announces a non-competitive, non-commercial show May 1 and 2 in the cafeteria of Grossmont High School, 12 miles east of San Diego on U. S. Highway 80. Materials from Crystal Hill, Jade Cove, Mesa Grande, Coon Hollow, Hauser Beds, Potato Patch and Jacumba will be shown as well as Indian artifacts, sandstone concretions and desert glass.

OCTOBER DATES CHOSEN

Humboldt Gem and Mineral Society, Eureka, California, has selected October 2 and 3 as dates for its 1954 show. The place will be announced later.

"WORKING HOBBY" THEME OF GEM SHOW IN AUGUST

Theme selected by member clubs in the Lapidary Association for their second annual gem and mineral show August 13 to 15 is "Working Hobby—Minerals to Gems." The process of transforming a drab specimen into a beautifully set gem will be illustrated in displays and working exhibits. The show will be held at the Shrine Convention Hall in Los Angeles, California.

Co-chairmen are A. B. Meiklejohn of the Los Angeles Lapidary Society and Thomas S. Warren of the American Gem and Mineral Suppliers Association. Treasurer is W. A. Stephenson of the Hollywood Lapidary Society. Committees are composed of members from the four host clubs: Los Angeles Lapidary Society, Hollywood Lapidary Society, the Gem Cutters Guild and Santa Monica Gemological Society.

Nelson Geode Bed was the destination of Clark County Gem Collectors on a field trip excursion from Boulder City, Nevada.

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Jade—(Alaska), ½ lb.	6.25
Slabs, per sq. inch.....	.96
Red Plume Agate (very beautiful), lb.....	12.00
Slabs (minimum 4"), per inch.....	1.50
Mexican Agate, per lb.....	3.50
Slabs (minimum 4"), per inch.....	.30
Tigerseye—Golden, per lb.	2.40
Slabs, per inch.....	.30
Amazonite (good color), per lb.....	5.00
Slabs, per inch.....	.50
Template, sizes marked for standard cuts	2.10
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¼-lb. Sunstone.....	\$2.60
¼-lb. Peridot, (small xls.).....	5.00
¼-lb. Kunzite.....	3.80
¼-lb. Amethyst (very good color).....	6.20
¼-lb. Smoky quartz.....	3.80
¼-lb. Topaz (small xls.).....	2.90
¼-lb. Apatite (golden).....	6.20
¼-lb. Garnet.....	5.00
Benitoite XI. (rare gem), each.....	4.70

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Pendant with chain, gold filled or s. silver with amethyst or topaz citrine hearts.....	3.75
Earrings to match, gold filled or s. silver for pierced or non-pierced ears.....	5.25
Agate marbles, genuine—large size.....	1.50
Small to medium sizes.....	1.00
Specimen boxes with 35 diff. minerals..	1.90
with 70 diff. minerals.....	3.90
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FOR SALE: Jasper wonder rock all colors. For flower pots, fireplaces, tiling etc. Polishes wonderfully. By pound, ton or car load, also claims for sale. Mary Moser, Box 176, Goldfield, Nevada.

BOOKS: Beginners to advanced. Gemology, mineralogy, geology, etc. Write today for free price list. Gem Finders, 859 North Ramona, Hawthorne, California.

FOR SALE—RX complete Lapidary shop in one machine, also 200 lb. Montana agates at bargain price. Nels Christoffer-son, 8058 Cypress Ave., Fontana, Calif.

ONE OF UTAH'S largest assortments of beautiful specimens of woods, agates, dinna bone. Many fine pieces of jade, and many others. Stop and see our museum of polished specimens and cut stones at 329 Reed Ave., Salt Lake City. The Dowses, Phone 3-8722.

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DENDRITIC OPAL. Kansas, good polishing stone, only \$1.25 a pound. Hastings Typewriter Co., Hastings, Nebraska.

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HIGH GRADE WOLLASTONITE for sale: 300,000 tons in sight half mile from paved highway. Guy Smith, Mina, Nevada.

RADIOACTIVE ORE Collection: 6 wonderful different specimens in neat Redwood chest, \$2.00. Pretty Gold nugget, \$1.00, four nuggets, \$2.00, choice collection 12 nuggets, \$5.00. Uranium Prospector, Box 604, Stockton, Calif.

AUSTRALIAN cutting fire opal, specimens, cutting material. H. A. Ivers, 1400 Hacienda Blvd., La Habra, California.

MINERAL SPECIMENS. cabochons and cutting materials of all kinds, western jewelry. Beautiful travertine for bookends, paper weights, spheres etc. Write for prices. Eighteen miles south of Battle Mountain at Copper Canyon. John L. James, Box 495, Battle Mountain, Nev.

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MONTANA SAPPHIRE: Small vial mine run \$2.00. Sapphires 1 to 2 carat, clear, suitable for faceting \$1.50 each. Harry Bentz, Philipsburg, Montana.

ATTENTION ROCK COLLECTORS. It will pay you to visit the Ken-Dor Rock Roost. We buy, sell, or exchange mineral specimens. Visitors are always welcome. Ken-Dor Rock Roost, 419 Sutter, Modesto, California.

WANTED: Chalk grade Turquoise. Write complete details as to quality and price. P.O. Box 5171, Phoenix, Arizona.

220 DURO Sanding Disks mounted on 5/8" plywood with sponge rubber cushion. Just what you need for polishing. 6" \$1.00 8" \$1.25 10" \$1.50 postpaid. Hastings Typewriter Co., Hastings, Nebraska.

GENUINE TURQUOISE: Natural color, blue and bluish green, cut and polished cabochons — 25 carats (5 to 10 stones according to size) \$3.50 including tax, postpaid in U.S.A. Package 50 carats 10 to 20 cabochons) \$6.15 including tax, postpaid in U.S.A. Elliott Gem & Mineral Shop, 235 E. Seaside Blvd., Long Beach 2, California.

JULY SHOW IN COMPTON

Annual show of Compton Gem and Mineral Club will be held July 17 and 18 at the Veterans of Foreign Wars Hall in Compton, California, announces Ida Coon, publicity chairman.

A quiz program was conducted by Oleta Becker, Bea Letcher and Lois Olinger at a Dona Ana County Rockhound meeting in Mesilla Park, New Mexico. Contestants drew numbers and qualified for the jackpot question if they answered three of the numbered puzzlers.

February field trip of Delvers Gem and Mineral Society, Downey, California, was to Death Valley. Leading the trip was Darold J. Henry.

Fifty members and guests of the Mineralogical Society of Arizona joined a group field trip to an orthoclase deposit south of Superior, Arizona. They found good crystal specimens, including Carlsbad twins in chunks of decomposed granite.

FOR SALE: Beautiful purple petrified wood with uranium, pyrolusite, manganese. Nice sample \$1.00. Postage. Maggie Baker, Kingman, Arizona.

FOR SALE: House of Agates on Highway 101, Eureka, California. Going business, retail and manufacturing—in semi-precious stones and jewelry. Includes property, living quarters, retail store, income from one leased building. \$10,000 will handle. Splendid location, Frank Coulter, Realtor. Cutten P. O. Box 43, Humboldt County, California.

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Election News

A new gem and mineral society—John Day Basin Charter Gem and Mineral Club of John Day, Oregon—has elected charter officers. Ralph Hibbard will serve the new organization as president, assisted by Mrs. La Vonne Oliver, secretary. C. W. Eskridge, advertising chairman, reported the club has fifty charter members and has several field trips outlined.

Harold L. Leach is new president of Benicia Rock and Gem Club, Vallejo, California. On his executive board are George L. Nance, vice-president; Roy O. Bahrenburg, secretary; May Spinder, treasurer, and E. C. Huett, director.

New officers of Roxy Ann Gem and Mineral Club are L. A. Mentzer, president; Harry Marx, vice-president; Mrs. Florence Renaker, secretary, Mrs. Eva Duggan, treasurer.

Receiving the gavel from Guy Morris, retiring president, Russel Doakes became new chief executive of Pacific Mineral Society, Los Angeles. Also installed at a recent meeting was J. R. Hecox who succeeds W. A. Clarke as vice-president and field trip chairman.

Newly-installed officers of San Gabriel Valley Lapidary Society, San Gabriel, California, are Karl H. Lust, president; Charles G. Wearden, first vice-president; Warren Dunbar, second vice-president; Mrs. Margaret Gnagy, secretary, and Charles C. Sautter, treasurer.

Mrs. Minnie Craig LaRoche was installed as president of Fresno Gem and Mineral Society. Other new officers are Clarence Yoder, first vice-president and field trip chairman; Dr. Asher Havenhill, second vice-president and program chairman; Mrs. June Riley, secretary; Ernest Islon, treasurer, and Dr. Clement A. Tavares, federation director. The board of directors is composed of Carl Noren, George W. Pierson, Paul Sorrenti and Ocie Randall.

DELVERS READY GRAB BAGS FOR MAY GEM SHOW

Members of Delvers Gem and Mineral Society, Downey, California, have been saving grab bag material for weeks, looking forward to the society's show May 8 and 9 in the community building of Simms Park, Bellflower, California. The kitchen committee was busy baking pies and cakes for the snack booth.

Dr. J. Harlan Johnson and the department of geology at Colorado School of Mines invited Colorado Mineral Society to hold its March meeting on the campus at Golden.

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NATRONA COUNTY CLUB SPONSORS WYOMING SHOW

Wyoming Gem and Mineral Show will be held in Casper, Wyoming, June 4 to 6, sponsored by the Natrona County Rockhound Club. "All phases of the rockhound hobby — polished gems, minerals, fossils, Indian artifacts and commercial equipment — will be covered," promises Mrs. M. D. Hays, secretary of the host club. Casper is in the heart of a good gem and mineral collecting area.

MAKE SHOW PLANS EARLY

Montebello Mineral and Lapidary Society will hold its first annual Rockhound Roundup November 6 and 7 at the Taylor Ranch House in Montebello, California.

LAPIDARIES, ARTISTS JOIN TALENTS IN SHOW

Lapidary and jewelry displays and oil paintings will be shown at the joint show of Los Angeles Lapidary Society and Southwest Art Association to be held May 1 and 2 in the auditorium of Van Ness Playground, 5720 Second Avenue, Los Angeles, California. Hours will be from 10 a.m. to 10 p.m. Saturday and from 10 a.m. to 6 p.m. Sunday.

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—Ira C. Lambert,

"We use the Mineralight in all our prospecting. It has been very valuable in locating uranium."
—Wm. H. Baldwin,

"This is without doubt one of the world's major deposits of Scheelite...would probably never have been discovered without a Mineralight."
—W. H. Hooper,

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All nine pieces, identified, postpaid guaranteed \$1.00

LOST MOUNTAIN GEMS

P.O. Box 5012, Phoenix, Arizona

Mrs. C. P. Hutchinson of Whittier Gem and Mineral Society has spent several years accumulating her collection of rough minerals used in the manufacture of color pigments. She displayed the collection at a Pasadena Lapidary Society meeting when she addressed members on "Minerals in Art."

April 2 was scheduled Junior Night at the Mineralogical Society of Arizona. Junior members also planned the program for the March general meeting of San Diego Mineral and Gem Society, California.

Pictorial designs on pottery of various Indian tribes were discussed by Dr. Walter Taylor, archeologist, at a meeting of Santa Fe, New Mexico, Gem and Mineral Club.

Roy Wagoner lectured on gem polishing at an evening meeting of Montebello, California, Mineral and Lapidary Society. He explained the use of abrasives and listed their various grades.

"The Production and Cutting of Colored Gem Material" was George Roy's topic when he appeared as speaker on a Shadow Mountain Gem and Mineral Society program in Palm Desert, California. Roy is a consulting gemologist.

Mineralogical Society of Southern California asked Dr. George Tunell to speak at its March meeting in Pasadena. Dr. Tunell chose to discuss "The Development of Crystallography in Relation to Mineralogy."

Committee heads have been named by San Francisco Gem and Mineral Society: Annette McFarland, editor; Alan Duff, program director; Bob White, field trip director; Alden Clark, federation director; Louise Berton, members' exhibits.

Several California gem and mineral societies scheduled the California Federation convention at Indio as their March field trip. Among the clubs planning to attend the meeting en masse were Compton Gem and Mineral Club, Kern County Mineral Society, Long Beach Mineral and Gem Society, Hollywood Lapidary and Mineral Society and San Diego Lapidary Society.

Palo Alto Geological Society, Palo Alto, California, visited Pinnacles National Monument on a recent field trip.

"We are going to look for moonstones but not on the moon, and for whale bone but not in the ocean," read the announcement of the East Bay Mineral Society's trip from Oakland, California, to Bolinas Bay in Marin County.

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3 for 1.00; 25 for 6.45
2 for 1.00; 25 for 9.45

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THE *Desert* MAGAZINE
PALM DESERT, CALIFORNIA

6000 Visitors Enjoy California Convention; New Officers Elected

More than 6000 visitors registered at the California Federation of Mineralogical Societies convention, held in March at the Riverside County Fairgrounds, Indio, California. "The Coachella Valley and San Geronio Mineral societies are to be complimented upon the fine arrangements, orderly operation and excellent cooperation which made this convention an outstanding success," commented Hubert A. Dafoe, new federation president.

Dafoe was elected at the 15th annual meeting held March 26, opening night of the three-day show. Other new officers are Vincent Morgan, Boron, California, vice-president, minerals division; W. A. Stephenson, Hollywood, vice-president, lapidary; Jessie Hardman, Long Beach, secretary, and Jack Klein, Barstow, treasurer. Chairmen of the judging, rules and regulations committees are Harold and Nathalie Mahoney, Oakland.

Twenty-three societies from all parts of California and several from Nevada were represented by displays at the show. Special praise is due the continuous music, the cleaning and sweeping out of the show buildings, the excellent registration and information service, the field trip arrangements, the art show and space allocations which made convention operation smooth and pleasant. Arrangements for trailer and camping space also were efficiently handled.

Saturday more than 175 federation mem-

bers boarded four chartered buses to visit Kaiser's Iron Mine in the Eagle Mountains north of Desert Center, and Sunday a similar caravan visited the Salton Sea, glauconite crystal area and hot mineral wells. Monday morning nearly 300 rockhounds joined a three-day field trip to Wiley Well in the Chocolate Mountains, Coon Hollow and Crystal Hill, Arizona.

The next convention of the federation will be held in the Cow Palace in San Francisco, and the 1956 meeting is scheduled for Fresno, California.

Joyce Alton of Phoenix reigned as queen over the annual gem and mineral show sponsored jointly by Maricopa Lapidary Society and the Mineralogical Society of Arizona and held in Phoenix in March.

Lapidary arts of Assyria, Babylon and Mesopotamia were discussed by Dr. Richard H. Swift, Los Angeles Lapidary Society speaker.

Presented with a choice between Pala and Mule Canyon, the latter site was voted by San Fernando Valley Mineral and Gem Society for its March field trip.

Outdoor explorations ruled out by rain, Roxy Ann Gem and Mineral Club of Medford, Oregon, took a "field trip" to seven members' homes to view their collections and inspect their workshops.

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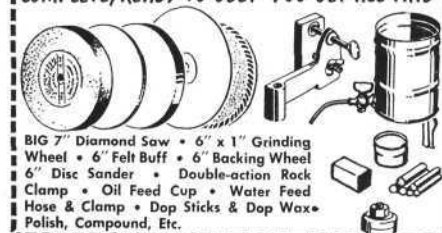
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A blue theme was followed at a recent meeting of Evansville, Indiana, Lapidary Society. Each member was asked to bring a blue stone for discussion.

A talk by Ralph Botter on "Mineral Analysis in the Field" was followed by installation of officers at the annual birthday dinner of El Paso Mineral and Gem Society.

Chicago Rocks and Minerals Society marked its eighth year with a birthday party. The program was a color movie on the life and arts of Southwestern Indians.

Santa Cruz, California, Mineral and Gem Society viewed a motion picture demonstrating the art of cutting and polishing cabochons. The film was taken by M. D. Taylor who afterward gave shop tips on cabochon cutting and faceting.

Al Cook showed slides of the Harvard collection of minerals for the entertainment of Compton Gem and Mineral Club.

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A multi-million-dollar uranium find by Member M. A. Hougen was reported in the March issue of *The American Prospector's Journal*, bulletin of the American Prospectors Club, Los Angeles. The discovery was made near Caballo, New Mexico.

Ladies of Southwest Mineralogists, Los Angeles, baked pies and cakes for a snack bar at the society's April show.

Cliff Wygle showed colored slides at a meeting of Coos County Mineral and Gem Club, North Bend, Oregon. Fluorescents are his specialty.

Speaking before members of the Earth Science Club of Northern Illinois, Ray Bish told "How Geodes Got That Way." He discussed the prevailing theory that geodes are formed in cavity, usually in lava, and described some varieties of geodes which seem to have some other origin.

Dr. Robert Webb of the University of California at Santa Barbara spoke to the Santa Barbara Mineral and Gem Society and showed colored slides on "New Mexico, Land of Geological Enchantment."

"Lapidary Work for Beginners," A. B. Meiklejohn's talk to Hollywood Lapidary and Mineral Society, was particularly interesting to tyro gem cutters in the group. Meiklejohn is a member of the Los Angeles Lapidary Society and president of the Lapidary Association.

The best gem quality amethyst, a rich purple with red sparkle, comes from the Ural Mountains in Siberia, Francis Hueber told members of Indiana Gemology and Gem Society when he spoke at a meeting in Indianapolis.

Pecos diamonds, aragonite crystals and roses, jasper and Indian artifacts were sought by members of Santa Fe Gem and Mineral Club on a field trip outing to a site south of Vaughn, New Mexico.

Emory Wilson John, 83, geologist and fossil collector, passed away March 3 at Delta, Utah. He was well known to many rockhounds throughout the country.

Maud Kelley's special project is teaching a group of neighborhood children about rocks and minerals. She told fellow members of Minnesota Mineral Club of her progress at the March meeting.

Mrs. Vivienne Dosse is a rockhound who specializes in small specimens. She displayed boxes from her extensive thumbnail collection at a meeting of Delvers Gem and Mineral Society, Downey, California. The secret of a beautiful collection of thumbnails is in the arrangement. Mrs. Dosse told her audience. Specimens should be colorful, perfect and, in the case of crystals, complete. They should be well displayed and systematically arranged. Mrs. Dosse's minerals are displayed in boxes divided into one-inch compartments. The identification is posted in the corresponding space on the box lid.

Sgt. George Zurian, president of El Paso Gem and Mineral Society, illustrated with blackboard drawings his talk on the manufacture of synthetic gems in Germany, as he observed the process while stationed with the army in Europe.

Two films, "Prospecting for Petroleum," explaining the geological theory of how oil was formed in the earth, and "The Fossil Story," telling the uses of fossil material for cement, oil, iron and building stone, were shown at the March meeting of the East Bay Mineral Society, Oakland, California.

"Precious Opal, Its Romance and Lore" was Mrs. M. H. Ziegler's topic when she spoke to Colorado Mineral Society at a meeting in Denver.

Quartz crystals and limonite cubes were collected by members of a field trip group from Delvers Gem and Mineral Society, Downey, California, on an excursion to Crystal Hill, south of Quartzsite, Arizona.

Carroll Chatham last year produced 55,000 carats of emeralds by his secret process; only 18,000 carats were mined from the earth. Chatham spoke on the Chatham emerald at a meeting of the Gem and Mineral Society of San Mateo County, California.

Indian jewelry and silvermaking were described by Buford K. Thomas at the March meeting of Wasatch Gem Society.

Harry and Ruth Crockett, bird authorities, presented a program of colored slides of Arizona birds at a meeting of the Mineralogical Society of Arizona. Many of the 445 species recorded in the state were shown.

Second "round-up" of Montebello Mineral and Lapidary Society, California, was held in March. Every member was asked to bring something to display and discuss.

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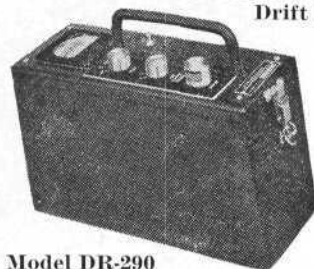
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Marble was under discussion at a recent junior meeting of the Earth Science Club of Northern Illinois.

Program chairman of San Francisco Gem and Mineral Society sent questionnaires to members asking their program preferences and compiled a year's entertainment schedule from ideas contained in answers.

Petrified palm and tule, ribbon agate, bloodstone, dumortierite and jasper were sought by San Diego Lapidary Society on a trip to the Ogilby-Tumco area of California.

Joint field trip to a contact-metamorphic formation in the Jacumba Mountains of Imperial County was planned for March by the Mineralogy and mineral resources division of San Diego Lapidary Society.

Colored slides of scenic trips through Nevada, Arizona, California and Colorado were shown by Mr. and Mrs. Harry Nelson to fellow members of Clark County, Nevada, Gem Collectors.

Geodes were the prizes on a recent Compton Gem and Mineral Club weekend outing to a site near Red Mountain, California.

Kramer Hills, California, for travertine and palm wood was the recent destination of a field trip group from Kern County Mineral Society.

F. W. Schmidt, member of the California Academy of Science, was guest speaker at a pot luck supper meeting of Long Beach Mineral and Gem Society. He showed pictures explaining geological history.

In the March issue of the *American Prospectors Journal*, bulletin of the American Prospectors Club of Los Angeles, Stan Skiba discussed radioactivity, describing the scintillation counter and comparing it with the geiger counter as an instrument for finding radioactive ore.

Gem and Mineral Society of San Mateo County, California, took advantage of low tides to take a mid-March field trip to Jade Cove.

TRUE OR FALSE ANSWERS

Questions are on page 24

- 1—False. The tarantula is comparatively harmless.
- 2—False. The Pecos is a tributary of the Rio Grande.
- 3—True. 4—True. 5—True.
- 6—False. Great Salt Lake is much larger.
- 7—False. The Paiutes have their home at Pyramid Lake.
- 8—False. Funeral Range borders Death Valley.
- 9—False. The Navajo and Spanish languages have nothing in common.
- 10—True. 11—True. 12—True.
- 13—True.
- 14—False. The coyote is a meat eater.
- 15—False. There are three Apache reservations.
- 16—True.
- 17—False. The blossom of the Ocotillo is red.
- 18—True. 19—True.
- 20—False. The north rim is higher.

An auction was scheduled for the March meeting of San Antonio Rock and Lapidary Society, San Antonio, Texas.

Santa Fe Gem and Mineral Society, New Mexico, hunted Apache tears in Peralta Canyon on a recent field trip.

A "panel of experts" composed of David MacKaye, Glenn Vargas, Dorothy Faulhaber, Leah Jayne Hambly and George Smith promised to try to answer members' questions at the March meeting of Coachella Valley Mineral Society, Indio, California.

Dr. Richard Jahns of California Institute of Technology spoke to San Fernando Valley Mineral and Gem Society on the formation of agate, petrified wood and the growth of crystals.

Dr. Carl Beck of the geology department of the University of New Mexico was invited to address Santa Fe Gem and Mineral Club at its April meeting.

The Tejon Ranch near Grapevine, California, on Highway 99 granted the Mineralogical Society of Southern California permission to search for garnets on ranch property.

Bill Rannels is collecting tumbling material from members of San Diego Lapidary Society. He has offered to polish scraps of agate and other gem materials for use by the society for grab bags and door prizes.

How deep is the ocean, and what is the sea-bottom landscape like? How is a submarine cable constructed, and how is it laid in the sea? These questions were promised answers at the March meeting of Chicago rocks and Minerals Society by Clell M. Brantlinger, guest speaker. Brantlinger's topic was "Messages Via Davy Jones' Locker."

Ideas for using baroque stones in jewelry were passed on to Fresno Gem and Mineral Society in the "Jewelry Angles" department of *Chips*, the club bulletin.

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By RANDALL HENDERSON

IN MARCH the California Federation of Mineral Societies held its annual convention and rock show on the desert—at Indio in the Coachella Valley—and for three days I had an opportunity to mingle with one of the gayest and most informal fraternities of human beings I have ever known. I guess most hobby groups are that way.

The rockhounds collect and cut and polish stones for the fun of it. And when they come together from all over the West for California's big annual reunion they leave their business and professional worries at home and spend three days swapping stones, admiring the gorgeous gem rocks on exhibit, and bragging about the rare beauty they have discovered in some obscure deposit of country rock.

Since about 98 percent of the solid substance of this globe is rock of various composition, the stone collectors will never run out of material for their hobby. Theirs is a great outdoor pastime which brings many benefits in addition to the acquisition of brilliantly-colored specimens of quartz, and copper and iron ores. To those who have never been initiated into the hobby of rock-collecting I can only suggest that the next time a mineral show is held within driving distance of your home town you visit the exhibit and become better acquainted with the artistry with which Mother Nature put this old planet together. It was a wondrous achievement.

* * *

Thanks to the courtesy of Tom Lesure, writer of Phoenix, Cyria and I had the opportunity in March to accompany the Dons Club on its annual Lost Gold Trek to Arizona's Superstition Mountains.

The Dons are Phoenix business and professional men—50 of them—dedicated to the purpose of perpetuating the best of the traditions of their state. The Trek to Superstition Mountains is held annually to keep alive the memory of the Dutchman, Jacob Walz, and his long lost gold mine.

I have read about this Lost Gold Trek for many years, and somehow had gained a wrong impression of it. I thought it was a swanky affair staged for the entertainment of the rich dudes who flock to Phoenix every winter season.

Actually it is a glorified family picnic—open to mother and dad and all the youngsters. And what a glorious field day we had in that lovely setting of Saguaros and Palo Verdes out at the base of the rugged Superstitions.

Over 600 Arizonans and their guests were present at this year's Trek. Of this number 350 persons took the 9-mile trail hike up into the Superstitions on a mock hunt

for the legendary lost mine. Members of the trail party were assigned to groups of from 30 to 50 hikers, with a Don, in the costume of old Spain, as the leader of each group. At the frequent rests along the steep trail, the leaders gave informal talks about the mysterious Dutchman's mine, and the geology and botany of the mountains.

For those who felt the hike would be too strenuous, a lively day of entertainment was provided at the base camp. A Mexican band and a cowboy orchestra took turns serenading the crowd. A quartet of Papago women spent hours making their native bread and there was always a long line of patrons waiting to get free samples of the delicious product. The Powder Horn Clan, a group of old firearms hobbyists, held target practice with their muzzle-loading guns, and next to them the Phoenix Police Department did some crack target and trick shooting.

Dr. Herbert Stahnke of Arizona State Teachers College, the Southwest's leading authority on the venomous reptiles and insects, had an exhibit, under glass, of some of the poison denizens of the desert. During the afternoon he gave a lecture on the subject. On the stage of the little outdoor amphitheater at base camp he handled scorpions, a sidewinder, a Gila monster, a coral snake and a rattler as if they were old friends. He even brought some of the children up on the platform to pass a desert tarantula among them, as evidence this hairy spider is quite harmless.

The climax of the day's events came in the evening following a program of Mexican and Indian dances, when a brilliant display of fireworks from the rim of the cliffs 3000 feet overhead was the prelude to a gorgeous firefall which rivals the famous Yosemite firefall in California for impressiveness.

Sack lunches were passed out at noon, and a barbecue dinner served in the evening.

The Lost Gold Trek is held in March each year, and is open to the public. A tremendous amount of detailed work is involved in the staging of such an event, and the Don's Club deserves the appreciation of all desert people for the important contribution its members are making in the preservation of Southwestern traditions.

* * *

As if to compensate for the lack of annual wildflower bloom this year—due to lack of rainfall during the winter—the Palo Verde trees this season have put on one of the most gorgeous displays of golden blossoms I have seen in years. We call this a desert, and yet there is no month in this arid land when some of the trees and shrubs of this region are not in bloom. I think April is the most delightful month of the year on the desert.

BOOKS of the SOUTHWEST

LONG-LOST GOLD MINE IN THE SUPERSTITIONS

Within five miles of Weaver's Needle in Arizona's Superstition Mountains, so the story goes, lies a fabulously rich gold mine. But, though men have been looking for seven decades, no one knows just where it is.

The mystery of the Lost Dutchman Mine rivals that of Pegleg Smith's black nuggets for top billing in the lost mine lore of the West. Jacob Waltz (other authors call him Walzer or Walz) is said to have been led to the mine by its original owners and to have died after numerous profitable trips to the site without having shared the secret of its exact location with anyone, although he dropped tantalizing hints to a few. Facts became distorted as the legend grew.

In his recently published book, *The Lost Dutchman Mine*, Sims Ely has attempted to separate fact from fiction. He repeats the Dutchman's story in what he believes to be the purest form possible and tells the various legends which have grown up around Jacob Waltz and his mine. He recalls others' attempts to find the hidden gold, bringing the chronicle almost up to the present with the account of a man who died seeking the mine in 1947.

The ending to Ely's story is yet to be written — possibly, he hopes, by some unknown adventurer who happens to read this book.

Published by William Morrow and Company. 178 pages, endmaps, \$3.50.

IF YOU WANT COLOR IN YOUR DESERT GARDEN

There are two classes of desert gardeners, the editors of *Sunset Western Garden Book* decided: "those who encourage the desert and its plants to come to their door and those who hold off the desert with flower color and the green of growing things." The latter group faces more difficulties in a region where extreme high temperatures exist day and night for three summer months of the year. To these gardeners, the *Western Garden Book* offers invaluable help.

The 384-page lie-flat volume offers everything from an introductory chapter on botany—"How Plants Grow"—to watering, pruning, pest control, a gardener's lexicon and encyclopedias of annuals, perennials, bulbs, vines, shrubs, vegetables and trees. Drawings and diagrams on almost every page

show the right and wrong of the simplest operation and illustrate peculiarities of different plants.

For purposes of planting timetables and instructions, the West is divided into 12 zones. Zone 8 is the desert region, Zone 8A the low desert, Zone 8B the high. Map sketches show readers into which category their garden falls. A calendar in the back of the book shows when to plant (and what), prune, spray, etc., for each zone.

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Published by Lane Publishing Company. 384 pages, spiral binding, index, numerous sketches. \$2.95.

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Published by Maude A. Fox, printed by Desert Magazine Press. 132 pages, 8 historic halftone illustrations. \$3.75.

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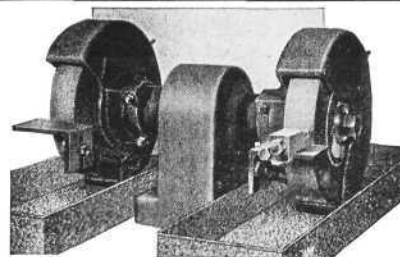
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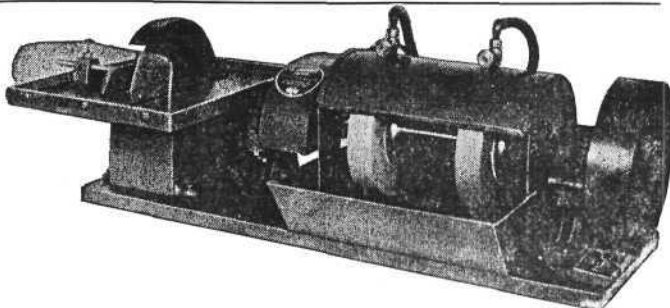
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